

# **INTEGRATING LANGUAGE AND CULTURE THROUGH CONCEPTUAL METAPHOR IN TEACHING CHINESE AS A FOREIGN LANGUAGE**

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# **INTEGRATING LANGUAGE AND CULTURE THROUGH CONCEPTUAL METAPHOR IN TEACHING CHINESE AS A FOREIGN LANGUAGE**

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University of Pittsburgh, 2017

The purpose of this study is to examine the changes in the understanding of learners of Chinese as a Foreign language (CFL) of certain Chinese metaphorical expressions (e.g. color phrases). By implementing conceptual metaphor theory as a way to connect language and culture in CFL instruction, the present study examines how instructional interventions can be used to raise students' conceptual awareness of certain metaphorical expressions and their communicative intent in a lower level Chinese language classes.

The research questions are: 1) What are the initial interpretations of certain color phrases by students from different linguistic and cultural backgrounds? 2) How, if at all, do students' explanations of color phrases with metaphorical meanings change from pre-test to post-test? 3) Can students make use of the knowledge that they gained from instruction to interpret novel metaphoric expressions using the color metaphors that they have learned?

The findings demonstrated that the students were able to interpret the color metaphors in a culturally appropriate way and applied their knowledge of three Chinese colors to metaphoric expressions that they had not encountered before. The findings also revealed that intentional instruction is needed for raising students' metaphorical awareness to better understand

metaphorical meanings in the target language and culture. The pedagogical implications raises the issue of the need to balance instruction on language and instruction on conceptual metaphors.

This study is beneficial to the foreign language education field for several reasons. First, instruction on metaphoric interpretations will encourage the students to use metaphors to communicate meaning in a foreign language, and facilitate their comprehension of cultural meanings of the texts in the target language. Because Chinese is a less commonly-taught language, this study furthers our understanding of Chinese color metaphors, a new research area that has not been fully explored before. This study also contributes to the issue of the disconnection between lower-level language courses and upper-level content courses, by introducing selected conceptual metaphors in lower-level classes.

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## **1.0 INTRODUCTION**

### **1.1 BACKGROUND FOR THE STUDY**

In its discussion of traditional university foreign language programs, the Modern Language Association (MLA) Ad Hoc Committee on Foreign Language (2007) addressed the issue of the curricular disconnection between lower-level language courses and upper-level content courses. One possible reason for the disconnection is that language instructors at the beginning level typically focus on the interpretation of the literal meaning in the texts, rather than the sociocultural context of the target language and culture. Conversely, faculty members who teach advanced level courses often expect their students to interpret literary works, including the metaphorical meanings that are found in these texts, despite their lack of instruction on metaphorical interpretations at the lower levels of language instruction.

Students who study foreign languages from beginning to advanced level at the university often experience difficulties in making a smooth transition to upper level courses because of the curricular expectations in beginning language courses compared to the skills that students need for success in advanced content courses devoted to literary analysis and culture (Dupuy, 2000). A curricular gap exists, therefore, between lower level language instruction with its emphasis on the fundamentals of language grammar and basic language functions and advanced courses

where students are expected to deploy their language knowledge for literary interpretation and analysis of cultural texts.

To close the gap between language and culture, the American Council on the Teaching of Foreign Languages (ACTFL) standards, especially the Culture goal area (National Standards in Foreign Language Education Project, 2015) places the integration of language and culture instruction in a very prominent position in foreign language education from the beginning to the advanced levels of instruction.

Recent research (Littlemore & Low, 2006; Littlemore 2009) on conceptual metaphor theory shows that a well-conceived and carefully designed instruction on conceptual metaphors can provide a way to connect language and culture in lower-level language classes and upper-level content courses. Drawing language learners' attention to the presence of metaphors in language can facilitate their comprehension of the cultural and metaphorical meanings in texts (Boers 2000). As Bobrova & Lantolf (2012) suggest, metaphorical competence should no longer be considered only for advanced foreign language learners. Rather, metaphor instruction should take place in the curriculum "from the earliest phases of instruction, and the development of metaphorical competence should become a cornerstone of any pedagogy that seeks to stress the integrated nature of language and culture." (p.19)

Lakoff and Johnson (1980) argue that "the essence of metaphor is understanding and experiencing one kind of thing in terms of another" (p.5). This argument defines metaphor as a cross-domain mapping between the source and target domains (Bobrova & Lantolf, 2012). For example, if a person uses the word "journey" to describe one's life experience through the metaphorical expression "Life is a journey," the person is trying to explain to the readers the abstract concept of "life" (abstract target domain) through the experience of a "journey"

(concrete source domain). Cognitive linguists emphasize that metaphors serve to facilitate the understanding of one conceptual domain, typically of a more abstract nature, through another conceptual domain that is more familiar or concrete to the speakers or readers. Because of this, metaphors are not only meant for the figurative uses in poetry or literature, but are also a very important means to help people develop conceptual understanding and communicate with each other in culturally appropriate ways (Steger, 2007). The fact that metaphors are so pervasive in language is due to their innate pervasiveness in human cognition. Metaphor is a figure of thought as much as it is a figure of speech (Yu, 1995).

Because of its pervasiveness, language learners are bound to be confronted with different metaphorical expressions at different stages in their study of a foreign language. Even in the beginning stages of language learning, students acquire words that have culture-specific metaphorical meanings. Gaining a conceptual understanding of metaphorical expressions, even those associated with the vocabulary and expressions of elementary level classes, will help language learners know those expressions and encourage them to delve into the cultural contexts behind their formation and use. A conceptual learning of different metaphorical expressions should be an integral part of language learning (Boers, 2000), especially if we want to minimize the culture gap between lower-level language teaching and upper-level content instruction.

## **1.2 PURPOSE OF THE STUDY**

In spite of its importance in language learning and human cognition, however, instruction on the metaphorical use of language has not gained enough research and curricular attention in foreign language classrooms (Boers, 2000). This is especially the case for the instruction on those lexical

items with rich metaphorical meanings, in addition to their original literal meanings (Low, 1998). For instance, if students only know the literal translation of the Chinese lexical item *red person*, they cannot interpret if it is a positive or negative comment about the person. Once students understand that the color red often signifies popularity and good fortune in Chinese culture, they will be able to interpret the metaphorical meaning as a popular and lucky person.

The purpose of this study is to examine the changes in the understanding of learners of Chinese as a Foreign language (CFL) of certain Chinese metaphorical expressions (e.g. color phrases). By implementing conceptual metaphor theory as a way to connect language and culture in CFL instruction, the present study examines how instructional interventions can be used to raise students' conceptual awareness of certain metaphorical expressions and their communicative intent in a lower level Chinese language classes.

Research on CFL has expanded over the past decades. However, the literature on Chinese pedagogy, especially those on the instruction of conceptual metaphors, is relatively sparse in comparison with other languages. The existing teaching practice of figurative language has focused mainly on idioms and formulaic expressions; teaching conceptual metaphors is not widely discussed or researched. Previous research that focused on Chinese conceptual metaphors was related to body parts, emotion (Yu, 1995, 2007), space, and time (Lai, 2012).

Yu's studies on emotion and body parts (1995, 2007) contribute to conceptual metaphor theory in cognitive linguistic comparing different metaphorical expressions in Chinese and English. However, Yu's studies only used corpus analysis or dictionaries as the sources of the research. In other words, his studies only identified from a cross linguistic perspective metaphors in English and Chinese. An examination of the teaching and learning of conceptual metaphors in CFL was not the purpose of his studies. Unlike Yu's studies, Lai (2012)'s study on Chinese

conceptual metaphors of time was implemented in a CFL classroom setting. His study offers many insights on the pedagogical implications of conceptual metaphor theory. This study also contributes to the research on teaching conceptual metaphors in elementary CFL classes and explores the under-researched area of color metaphors.

### **1.3 RESEARCH QUESTIONS**

My research draws inspiration from previous studies on color metaphors (e.g., Xing, 2008, Rasekh & Ghafel, 2011), but focuses primarily on the cross-cultural metaphorical interpretations and pedagogical implications in CFL teaching and learning. The research questions are listed below. The present study examined how instructional interventions can be used to raise students' conceptual awareness of certain metaphorical expressions in Chinese in a lower level language class.

- 1) What are the initial interpretations of certain color phrases by students from different linguistic and cultural backgrounds?
- 2) How, if at all, do students' explanations of color phrases with metaphorical meanings change from pre-test to post-test?
- 3) Can students make use of the knowledge that they gained from instruction to interpret novel metaphoric expressions using the color metaphors that they have learned?

This dissertation study was conducted over a three-week period in two CFL classes at the university level. The students from Elementary II Chinese class in 2016 spring term (1st year, second semester) and 2016 fall term participated in the study as volunteers. I collected data from two classes during two semesters to increase the sample size and to include participants who

represented different cultural and linguistic backgrounds. In the 2016 spring term, 15 students participated, and in the fall term, 10 students participated.

Data came from the written pre-test and post-test, the post-study survey, and the observer's field notes. The findings revealed pedagogical implications about the teaching of foreign languages, specifically for Chinese as a less commonly-taught language, which are discussed in Chapter 5.

#### **1.4 THE SIGNIFICANCE OF THE STUDY**

Conducting this study is beneficial to the foreign language education field. First, because metaphors are pervasive in everyday spoken and written modalities and have variations across different cultures (Bobrova & Lantolf, 2012, p.18), instruction on metaphoric interpretations will encourage the students to use metaphors to communicate meaning in foreign language, and facilitate their comprehension of cultural meanings of the texts in target language. In addition, instruction on metaphoric interpretations can also help students learn unfamiliar metaphorical expressions by way of placing and categorizing expressions according to systematic semantic themes (Boers 2000).

Specifically, in the CFL context, the significance of this study is its contribution to the Chinese language education field and to Chinese language teacher preparation. First, the study provides an example of an instructional unit on teaching color metaphors for Chinese language teachers. The investigation shows how metaphor instruction was implemented in the classroom and what challenges and successes the researcher experienced. CFL teachers may use this model to design and teach the Chinese conceptual metaphors. Second, because Chinese is a less



commonly-taught language, this study furthers our understanding of Chinese color metaphors, a new research area that has not been fully explored before. Thus, it contributes to our understanding of how systematic instruction supports students' learning of conceptual metaphors.

Third, the findings demonstrated that the students were able to interpret the color metaphors in a culturally appropriate way and applied their knowledge of three Chinese colors to metaphoric expressions that they had not encountered before. Therefore, this study contributes to the design of CFL pedagogies that meet the American Council on the Teaching of Foreign Languages (ACTFL) standards, especially the standards of the Culture goal area (National Standards in Foreign Language Education Project., 2015). This study also contributes to the issue of the disconnection between lower-level language courses and upper-level content courses, by introducing selected conceptual metaphors in lower-level classes.

## **1.5 ORGANIZATION OF CHAPTERS**

Following this introduction to the dissertation, Chapter 2 focuses on the review of relevant literature for the study. The literature review is divided into four sections. The first two sections focus on conceptual metaphor theory and its important role in cultural understanding. The third section focuses on the research that has been conducted on conceptual metaphors in foreign language learning. Finally, the fourth section of the literature review focuses on studies of conceptual metaphors in CFL.

With the support of the literature, Chapter 3 focuses on the methodology to answer the research questions. Chapter 4 presents the findings from my study. The chapter is organized by

each research question. The first section focuses on the findings about the students' initial interpretations of Chinese color phrases. The second section focuses on the findings about the changes in interpretation by comparing the results of the pre-test with the post-test. The third section focuses on the findings about the students' interpretations of color phrases in new contexts.

Chapter 5 presents four points for discussion based on the research study. The first point is that intentional instruction is needed for raising students' metaphorical awareness to better understand metaphorical meanings in the target language and culture. The second point is presents reasons why some students maintained their initial interpretations of color metaphors after the instructional intervention. The third point raises the issue of the need to balance instruction on language and instruction on conceptual metaphors. The final point of discussion is directions for future research.

## **2.0 LITERATURE REVIEW**

Metaphors and related figurative expressions have been studied as useful concepts for constructing cultural identities or comparing cross-cultural differences in various disciplines such as anthropology, sociology, and cultural studies (Caballero, R & Díaz-Vera, J., 2013). Due to the limited scope of the paper, this literature review will only focus on research related to metaphors or figurative expressions in the education field, especially in L2 instruction and learning. Specifically, the literature review included in this section focusing on:

1) the definition of conceptual metaphor and conceptual metaphor theory; 2) the relationship between culture and metaphor and why is this relationship important; 3) the research which has been conducted on conceptual metaphors in L2 learning; and 4) what research is still needed, especially in teaching Chinese as a foreign language.

### **2.1 CONCEPTUAL METAPHOR THEORY**

Cognitive linguistics is a usage-based approach to the study of language, which regards one's linguistic knowledge as a part of one's general cognition. Cognitive linguists agree that language is symbolic in nature, embodied and situated in one's surrounding world experiences. Linguistic behavior cannot be separated from other cognitive abilities that allow mental processes, such as reasoning, memory, attention, and learning, but is rather as an integral part of them (Ibarretxe,

2013). According to cognitive linguists, there are five key elements that need to be taken into consideration when analyzing language (Tyler, 2012). 1) The construal element, which is how different languages express experiences in different ways. 2) Conceptual metaphor, which means defining X as if it were Y. 3) Categorization, which refers to placing one item in a class or group. 4) Embodiment, which takes place when sensory images and experiences give shape to language, and 5) The usage-based nature of language.

Because language is the embodiment of sensory experience and cognitive processes, with which we construe the world, cognitive linguistics pays special attention to the examination of contexts in language analysis, namely, the lexicon, discourse and use, meaning, and social contexts. Here, meaning is understood in terms of conceptualization that is “encyclopedic and grounded in experience” (Ibarretxe, 2013). Social context, on the other hand, refers to the “social and cultural nature of language and its relationship with situated cognition, variation within and among languages and cultures, and discourse” (P.316).

### **2.1.1 Conceptual metaphor**

Cognitive linguistics argue that metaphor is not only linguistic but also conceptual. The basic assumption is that human cognition process is structured and defined in a metaphorical way. Metaphor is not only an extraordinary or rhetorical/ornamental device used in literature and poetry, but is pervasive and indispensable in everyday language (Lakoff & Johnson, 1980.). It is regarded as an essential way of thinking, “a process by which we understand and structure one domain of experience in terms of another domain of a different kind” (Johnson, 1987, p. 15). The reason we use metaphors in speech is not only because we want to make our expression more descriptive or accessible, but is because our “concept is metaphorically structured, our activity is

metaphorically structured, and, consequently, our language is metaphorically structured” (Lakoff and Johnson, 1980, p.5).

This conceptual view of metaphor emphasizes the important role played by words in the development of concepts. From a sociocultural perspective, concepts cannot exist without a semiotic system. More precisely, it is through the mediation of words that a concept is understood in relation to other concepts (Vygotsky, 1986). Because of this, any analysis of the metaphorical use of language should also be an analysis of one’s thinking, degree of regulation, and concept development.

### **2.1.2 Conceptual metaphor theory**

Conceptual metaphor theory is one of the earliest and most important theories that adopt a cognitive semantic approach. For a long time, it was one of the dominant theories, and still remains an important perspective, in the development of the larger cognitive linguistics enterprise (Evans, et al., 2007, p.16). According to the theory, one’s conceptual structure is organized by cross-domain mappings or correspondences inherent in one’s long term memory between the source and target domains. These mappings originated from one’s pre-conceptual embodied experiences, but build on them to form more complex conceptual structures. As Lakoff and Johnson (1980) suggest when talking about ontological metaphors: “no metaphor can ever be comprehended or even adequately represented independently of its experiential basis, which are grounded by virtue of systematic correlates within our experience” (p.58). For instance, what makes the metaphor MORE IS UP work in the expression “My income rose last year” is the correlation between piling-up objects verticality. Conceptual metaphors cannot be

separated from their experiential bases, that is, our interactions with the physical, social, and cultural dimensions of the world around us (see Johnson 1987).

These claims made by conceptual metaphor theorists directly connect to two central assumptions made in cognitive semantics, namely, the embodied cognition thesis, and the thesis that the semantic structure reflects the conceptual structure (Evans, et al., 2007). For instance, in “She got a really high mark in the test,” we can think and talk about the person’s learning quality in terms of vertical elevation, where the word “high” refers not literally to the physical height but to a good test score. The reason we can do this, according to conceptual metaphor theory, is that the conceptual domain of the quality of learning has been conventionally structured and understood in terms of the conceptual domain of vertical elevation.

### **2.1.3 Conceptual metaphor and linguistic metaphor**

Recent research also points out the distinction between conceptual metaphor and linguistic metaphor. Littlemore (2009) defines the difference between the two phenomena as “the drawing together of incongruous domains” in the case of conceptual metaphor, and “the drawing together of incongruous words” in the case of linguistic metaphor (p. 98). Lakoff (2006) argues that the conceptual metaphor is a cognitive/mental phenomenon that allows understanding and experiencing one kind of thing in terms of another. While linguistic metaphor is a linguistic phenomenon constituted by a set of words that imbue a phrase or entire sentence with figurative rather than literal meaning (Bobrova & Lantolf, 2012, p. 34). The key feature of a linguistic metaphor is that the word in it matters and is not replaceable. For example, in the linguistic metaphor ‘She is my better half’, we cannot replace the word ‘half’ with ‘an equal part’, though the two can mean the same thing.

Different from linguistic metaphors, conceptual metaphors are typically used to explicate abstract concepts, such as time or emotions, by way of easily understandable concrete entities, such as places and containers (Lakoff and Johnson, 1980). For instance, in the metaphorical expression “The theory needs more support” or “This is the foundation of our theory,” the more abstract conceptual features of “theory” are understood through the more concrete physical features in the “structure” of things (Littlemore & Low, 2006, p.270). According to Littlemore and Low (2006), linguistic metaphors are more “fossilized” and “idiomatic,” in the sense that exact words are crucial to constitute the metaphor; whereas in conceptual metaphors, the word formulation is less rigid and the metaphorical expression itself is more versatile and adaptable to different language situations.

However, though linguistic metaphors and conceptual metaphors can be differentiated theoretically, they are often interrelated in actual language use. Behind each linguistic metaphor, conceptual thinking also plays an important role. Therefore, for language learners, simply understanding the morphological and syntactic meanings of a linguistic metaphor is not enough. To grasp its metaphorical meaning and how it is constructed that way, one has to understand the conceptual thinking behind its formation.

## **2.2 CULTURE AND CONCEPTUAL METAPHOR**

### **2.2.1 The definition of culture in foreign language education**

There are different definitions of culture in different disciplines, as culture is a very complex concept. According to the National Standards for Foreign Language Learning (2015), culture

comprises three interrelated aspects: cultural products, behavioral practices, and philosophical perspectives. In a society, some cultural products are tangible, such as food, literature, art works, and tools; others are intangible, such as laws, music or the system of education. Behavioral practices refer to the socially acceptable patterns of behaviors, which represent people's social knowledge of "what to do, when and where." Philosophical perspectives are the underlying social beliefs, values, norms and ideas, which are passed on from one generation to another to help the members of a society make sense of the world. The philosophical perspectives give meaning to cultural products and behavioral practices.

Galloway (1999) adds another layer of explanation to this definition of culture. She argues that cultural products include all the things that a society conceives, creates, and uses to mediate social activities. A product can be concrete (clothing, food, tools, literature, etc.) or abstract (ideas, rules, laws, organizational structures), and one of the most important cultural products is language. Cultural practices are human activities that are immediately connected with, but also simultaneously code and decode, the cultural products. Philosophical perspectives are a society's particular ways of viewing and understanding the world, that is, how the society makes sense of its products and practices.

### **2.2.2 Cultural variations in conceptual metaphor**

Conceptual metaphors provide a way for language learners to probe into and understand the target culture in its three interrelated aspects (products, practice, and perspectives). The conceptual metaphor theory develops from the premise that metaphor and culture are closely connected. Culture plays a key role in the explanation of how certain conceptual metaphors emerge from our knowledge structure. According to Lakoff and Johnson (1980), conceptual



metaphors are cultural products. The application of them is based on a society's culture and history that have been passed on from one generation to another. The continuous use of conceptual metaphors makes a society's socio-cultural accumulations through history available and accessible to its people. Through the use of these conceptual metaphors, people can mediate their own social function and interact with the surrounding world on the basis of the cultural knowledge imbedded in the metaphors.

Ibarretxe (2013) proposes a new relationship between culture and conceptual metaphors, by saying that "metaphor needs culture as much as culture needs metaphor." Focusing on cross-linguistic and cross-cultural analyses of the link between cognition and physical perception (p.315), he argues that culture plays a key role in the configuration of the most crucial factor in the meaning mechanisms in cognitive linguistics, namely, the conceptual metaphor.

Since language is to some extent a cultural construct, the metaphorical usages in language also vary in different cultures. Focusing on languages other than English (Arabic, Polish, German, Spanish, and Basque), the articles in the 2013 special issue of *Intercultural Pragmatics* re-examine the close relationship between metaphor and culture (Caballero & Díaz-Vera, 2013). The main questions discussed in this issue include: what is the role played by culture in the formation of metaphor, and the implications of cultural metaphors in cross-linguistic communication. To address these questions, Awab & Norazit (2013), using corpus linguistics and discourse analysis as the theoretical framework, investigate the cultural variations in metaphors by comparing the metaphorical expressions used in major newspapers in Malaysia and Singapore to report the 2008 global economic crisis.

Díaz-Vera & Caballero (2013) also uses the corpus of contemporary American English and Spanish to compare and analyze the metaphorical expressions of jealousy in English and

Spanish. According to them, American English speakers tend to use more sensory-related metaphors (including vision, hearing, smelling and tasting) to express their jealousy than Spanish speakers. All these articles provide a critical overview and review of how culture has been defined in mainstream cognitive linguistics, by way of examining the cross-cultural variations in the use of metaphors.

### **2.3 RESEARCH ON CONCEPTUAL METAPHORS IN L2 LEARNING**

Conceptual metaphor theory distinguishes between two main types of metaphors, primary metaphors and complex metaphor. Primary metaphors are often shared across cultures, because of the embodied nature of human cognition. For example, MORE IS UP and LESS IS DOWN is common sense in different cultures. Complex metaphor is more cultural-specific, and is usually different in different cultures. For example, there are expressions in English using boiling water to describe about anger, in which the metaphor is ANGER IS BOILING WATER and the human body is a container. While in Chinese, it is more common to describe anger using metaphor that ANGER IS GAS in a container. Focusing on the interrelation between these two types of metaphors, scholarship on conceptual metaphor in foreign language pedagogy pay special attention to the development of metaphorical awareness and metaphorical competence in foreign language learning.

### **2.3.1 Metaphorical awareness**

Research on conceptual metaphor has highlighted three important factors for L2 learners: (1) Metaphor comprises high-order thinking to reason about abstract concepts and phenomena; (2) Metaphor in everyday language is pervasive in both spoken and written modalities; (3) Metaphor is a cultural phenomenon that has variations in different cultures. In addition, the use of metaphor is generally a non-conscious process, that is, native speakers are unaware of their use of metaphors. Because metaphors are below the surface of users' awareness and that makes understanding the cultural perspectives difficult in some cases.

According to Bobrova & Lantolf (2012), though native speakers can usually think and speak in metaphors because they give naturalness to their discourse, this ability of thinking and speaking metaphorically is often absent in L2 learners (p.18). In order to increase L2 learners' metaphorical awareness in the target language, researchers (Danesi, 1995, Danesi & Mollica, 1998, Littlemore, 2009, Boers, 2000, 2003) carried out cross-culture and cross-linguistic comparisons to help L2 learners understand the similarities and differences between their native language and L2 in terms of their metaphorical properties. Boers (2000, p. 140) suggests a strategy to draw L2 learners' attention both to the source domains that serve as the origin of the metaphorical expressions and to the presence of metaphors in both spoken and written forms of the target language. In this strategy, the instructor introduces new expressions which are organized based on the metaphorical meanings.

This strategy, according to Boers, has three benefits: First, it facilitates the learners' comprehension of L2 discourse. Second, it helps the learners understand the value judgments associated with the metaphorical expressions, Third, it encourages learners to recall and learn unfamiliar metaphorical expressions by organizing them into systematic semantic themes (pp.

145-146). Aligning with Boer's (2000) argument, Littlemore (2009) suggests that a systematic use of conceptual-metaphors to teach vocabulary has been proved to be more effective than a less systematic approach. L2 learners exposed to the metaphorical approach are able to acquire new vocabulary (p.99). Moreover, Boers (2003) emphasizes the importance of metaphorical awareness for FL, by demonstrating the impact of metaphor variations across cultures.

Littlemore and Low (2006) argue for integrating both conceptual and linguistic approaches in order to develop the metaphorical competence of learners (Bobrova & Lantolf, 2012, p.21, 22). Danesi and Mollica (1998) argue that even though L2 users may be able to employ the words and grammar of certain metaphors in the target language, their use of the words and grammar cannot exhibit the same level of conceptual meaning as constructed in the original metaphors.

### **2.3.2 Metaphorical competence**

Danesi (1995) states that most foreign language learners show a strong tendency to interpret metaphors literally rather than figuratively, and an important cause of this problem is that the language usage in our textbooks often reflects only literal rather than metaphorical meaning. For instance, in the following sentence “他是学校里的红人[ta1 shi4 xue2 xiao4 li3 de1 hong2 ren2]” (Lit. He is the red person in the school), the person's role in the school is understood metaphorically in terms of a Chinese color term 红人 [hong2 ren2]. If the language learner only knows the literal translation as “red person”, but does not understand the metaphorical meaning, the language learner cannot interpret it as positive or negative comment about the person. In this color metaphor, the source domain is the cultural implications associated with the color of red in

Chinese culture, and the target domain is the specific properties of “him” as a member of the school. Once we understand that the color red often signifies prosperity and popularity in Chinese culture, we will be able to project and map these properties to the target domain interpret the metaphorical meaning of the sentence, namely, “he is a popular person or rising star in the school.”

Littlemore and Low (2006a) also express the same concern about the marginalization of metaphor instructions in our pedagogical practices and design of the instructional materials. Because of this, scholars (Bobrova & Lantolf, 2012) have suggested that metaphorical competence should no longer be considered an obscure or complex aspect of language learning, which can only be introduced to advanced, literary-oriented L2 learners. Rather, metaphor instruction should take place in the “curriculum from the earliest phases of instruction, and the development of metaphorical competence should become a cornerstone of any pedagogy that seeks to stress the integrated nature of language and culture” (p.19). This argument justifies my study setting in elementary Chinese class instead of advanced level class.

Metaphorical competence is part of sociolinguistic competence, which refers to language learner’s “sensitivity to, or control of, the conventions of language use” in various linguistic contexts (Littlemore & Low, 2006, pp. 90-91). Littlemore & Low (2006) further explain this definition as the ability to interpret cultural references and figurative language appropriately. In order to understand the metaphors and their conceptual meaning in the discourse, “learners need to appreciate the extended meanings and evaluations given by a specific culture to particular events, places, institutions, or people” (Littlemore & Low, 2006, p. 274). Only in this way, language learners can develop the metaphorical competence that can help them recognize the cross-cultural and cross-linguistic differences in metaphors and use this knowledge.

## **2.4 CURRENT RESEARCH ON CONCEPTUAL METAPHORS IN CFL**

Although CFL teaching has significantly expanded over the past decades, the literature on Chinese pedagogy, especially on the instruction of conceptual metaphors, is relatively sparse in comparison with those in other languages. According to a survey conducted by the Modern Language Association in 2002, Chinese has become the seventh most commonly studied foreign language in the U.S. at the college level, having increased 20% since the last survey in 1998 (Welles, 2004). However, as Caballero & Díaz-Vera (2013) rightly point out, “Despite the growing body of research in cultures other than those where English is the main language, most studies focus on English data. Consequently, it is hard to decide whether similar results should be expected from other linguistic and cultural areas.” (p. 206). For this reason, it is necessary to carry out more research on cross-cultural and cross-linguistic aspects of metaphor. In the following section, I will look at the research that has been done on the different conceptual metaphors in Chinese. More specifically, I will focus on the studies on the Chinese conceptual metaphors related to space and time, emotion and body parts.

### **2.4.1 Emotion & body parts**

In a comparative study of the metaphorical expressions of anger and happiness in English and Chinese, Yu (1995) demonstrates that English and Chinese languages share the same conceptual metaphor ANGER IS HEAT. However, while English often uses “fire” and “fluid” to construct and articulate this conceptual metaphor, Chinese chooses “fire” and “gas” for the same purpose. In contrast, both English and Chinese use the metaphors of “up,” “light,” and “container” to conceptualize happiness. Yu then offers a principled explanation of the differences between

these conceptual metaphors in the two languages, using the theories of yin-yang and five elements in Chinese medicine.

This idea of Qi can be traced back to ancient Chinese Medicine about the flow of inner Qi in the body. Smooth flow of Qi will bring health, while conflict Qi will be angry and unhealthy (Same as the idea of smooth flow of Qi in practicing Taiqi and martial arts). If combined with different lexical items, Qi (gas) is also used to describe a person's other emotions/personalities such as energetic, brave, talented, etc. According to Yu, these medical theories provide the cognitive and cultural foundation for the metaphorical conceptualization of anger and happiness in the Chinese language. Yu's (1995) study provides empirical evidence to support that metaphor is essential in human thinking, understanding, and reasoning. It shows that although the conceptual metaphors of anger and happiness are generated from common body experiences shared by people across the world, metaphors are also constructed and articulated differently in different languages due to people's different cultural knowledge and perspectives.

In another study on the conceptual metaphors related to human body parts, Yu (2007) explained the importance of the heart in ancient Chinese philosophy, namely, "Heart (target) is the ruler of the body (source)," as Chinese people understand the metaphoric meaning of the heart through our understanding of the body. In traditional Chinese culture, heart is regarded as an organ of the body of thinking and reasoning, as well as that of feeling. Because of that, it is conceptualized as the central faculty of cognition. According to Yu, "this cultural conceptualization differs fundamentally from the Western dualism that upholds the reason-emotion dichotomy, as represented by the binary contrast between mind and heart in particular, and mind and body in general."(p.59). This difference in turn leads to the different usage of body parts as conceptual metaphors in the English and Chinese languages. Yu also found that the

“Heart as ruler” metaphor had a mirror metaphor, namely “The ruler is the heart of the country”. If combining these two conceptual metaphors, then the ruler as the “heart” of the country leads his nation, while guided by his own heart as the “ruler” of his body. Yu suggests that “the two-way metaphorical mappings are based on the overarching beliefs of ancient Chinese philosophy in the unity and correspondence between the microcosm of man and the macrocosm of universe.” (p.59) This metaphorical conceptualization of heart in ancient Chinese philosophy is still being used in Chinese language and culture today.

Yu’s studies on emotion and body parts (1995, 2007) contribute to the conceptual metaphor theory in cognitive linguistic by providing empirical evidence to support and compare different metaphorical expressions and their conceptual formation in Chinese and English languages and cultures. However, Yu’s studies were not geared primarily towards Chinese language teaching, and only used corpus study or dictionaries as the sources of the research. In contrast, Lai (2012) implemented his study on time, space and orientation in a real CFL classroom setting, and offered many insights on the pedagogical implications of the conceptual metaphor theory.

#### **2.4.2 Time, space & orientation**

In Lai’s dissertation (2012) on Chinese conceptual metaphors of time, he investigated the pedagogical effect of using a concept-based approach to teach elementary-level English-speaking college learners the Chinese temporal system. The pedagogical framework, Systematic-Theoretical Instruction, adopted by Lai in this study was originated in Vygotsky’s sociocultural theory. The concept-based instructional approach proposed by Lai not only provided the learners with an explanation of the meaning of the target grammatical units, but also a step-by-step



guidance for learners to gradually develop a conceptual understanding of those units. Lai considered two Chinese temporal markers as the units of instruction: the duration aspect marker “zhe” and the perfective aspect marker “le.” The two units were presented in the form of a visual schemata, which was used for learners to regulate their mental actions during the learning process. The research contained both quantitative and qualitative data and analysis.

In the data analysis section, Lai conducted statistical analyses of the written tasks (translations and essays) completed by three different groups of CFL learners. The experimental group and control group 1 were at the elementary level and taught by Lai. Control group 2 was at the intermediate level and taught by another instructor. The findings revealed that the experimental group had outperformed control group 1 and performed no differently (no statistical difference) from the more advanced control group 2. Lai’s findings suggest that a coherent and organized pedagogical presentation on Chinese temporal metaphors can enhance the learners’ conceptual understanding of them. In addition, it also proves that complicated metaphorical concepts, which traditionally be viewed as a more suitable learning subject for advanced learners, can be taught to novice learners, as long as the concepts are presented as meaningful units in a systematic way.

There are, however, some limitations in Lai’s (2012) study. First, the original instructional design had to change considerably in order to accommodate the requests made by the language program administration. Second, the original design was not approved by the IRB (Institutional Review Board). The learning process could have been clearly documented if video and audio recording was allowed.

### 2.4.3 Color metaphor

In different languages, color words (e.g. white, red, or black) play an important role not only in describing the color appearance of different objects, but also in metaphorically expressing, through their extended and/or abstract meanings, people's experience, thought, and emotion towards the perceived reality. For example, the expression "he turns red with anger" in English is a metaphorical expression used to mean "he is angry", whereas the expression "red person" in Chinese employs the metaphorical implications of the color red to describe the person's popularity.

As discussed before, all metaphors are fundamentally conceptual, because it represents an essential way of thinking, by which we understand and structure our perceived reality. Color metaphors are no exception. Scholars have argued that most of the extended and abstract meanings of the color terms develop from their original meanings (Xing, 2008). Once these meanings become established, the function just like other conceptual metaphors, in the sense that they have become an important aid to help people perceive, understand their cultural reality, and convey their perception and understanding in a metaphorical way. Hence, in order to figure out the true implications behind a color metaphor, language learners need to know not only the concepts that are usually associated with that color in a particular culture, but also how these concepts come into play in communication.

How people in different languages utilize color metaphors to convey their perception and understanding of their cultural reality demonstrates both similarities and differences. Rasekh & Ghafel (2011) compared basic colors and their metaphorical connotations in English and Persian, and find that though there were overlaps to some extent, most of the color metaphorical expressions were culture-bound and specific to each language. Xing, in her comparative study of

the basic color terms in English and Chinese, also argues that an in-depth analysis and comparison of color metaphors is needed (Xing, 2008). When language learners gain a basic understanding of these perceptions and beliefs, they will be able to understand the rationales behind the choice and use of certain color metaphors in a given language and culture, and acquire the knowledge and skill to use color metaphors in a more creative and accurate way.

There are differences between metaphor and polysemy. A test for polysemy is the ability to use the meanings of the word in a single sentence. For example, in the sentence “I worked for the newspaper that you are reading”, all the meanings can combine in a single sentence. While the metaphoric meaning is different, for example, a red house is referring to the color, and a red person is referring to the metaphoric meaning or a lucky individual, which is an abstract attribute of a person. I use color phrases as metaphors because this is how they have been researched in the literature (Lantolf, 2014).

Also, the way in which I use lexical items (color phrases) as metaphors for my study is different from the types of conceptual metaphors in Lakoff and Johnson (LIFE IS A JOURNEY) because of the level of the language learners. Beginners cannot handle the discourse demands of conceptual metaphors that demand discourse level competence. Teaching color metaphors in phrases are appropriate since this study is to teach these lessons in Chinese and students are not able to participate in extended discourse at this proficiency level.

### **3.0 RESEARCH METHODOLOGY**

The research studies reviewed in the last chapter on conceptual metaphor theory in cognitive linguistics was used as the theoretical framework to guide this research. My research focused primarily on the conceptual formation of certain color metaphors in Chinese and implications for instruction on metaphors at the elementary level of Chinese as a foreign language.

The reason for choosing Chinese color metaphors as a subject of study is that in different languages, color words play an important role not only in describing the appearance of different objects, but also in metaphorically expressing, through their extended and abstract meanings, people's experience, thoughts, and emotions towards the perceived reality. For example, *he is a red person* in Chinese uses the metaphorical implications of the color red to describe the person's popularity. How people in different languages use color metaphors to convey their perceptions and understandings of their cultural reality reveals both cultural similarities and differences.

### **3.1 RESEARCH QUESTIONS**

My research drew inspiration from all the previous studies on color metaphors (see section 2.4.3 for a summary of these studies), but focused primarily on their conceptual formation and implications for instruction on metaphors at the elementary level of Chinese as a foreign

language. My research questions are listed below. The present study examined how instructional interventions could be used to raise students' conceptual awareness of certain metaphorical expressions in Chinese in a lower level Chinese language class.

- 1) What are the initial interpretations of certain color phrases by students from different linguistic and cultural backgrounds?
- 2) How, if at all, do students' explanations of color phrases with metaphorical meanings change from pre-test to post-test?
- 3) Can students make use of the knowledge that they gained from instruction to interpret novel metaphoric expressions using the color metaphors that they have learned?

## **3.2 CONTEXT OF THE STUDY**

This section describes the pedagogical approach and intervention and research methods used to examine the outcomes of this study. This section presents information on the participants, instructional context, timeline, details of the instructional intervention, and data collection and data analysis procedures.

### **3.2.1 Participants**

This study was implemented at a private university in the Pittsburgh area. 80% of the students in the classes that experienced the intervention have science and technology background. The small student-teacher ratio of one teacher to 15 students provided a good opportunity for close interaction between students and the instructor. The Chinese program in the university offers a

range of courses from Elementary Chinese (1st year) to Advanced Chinese (4th year). The Chinese major and minor are also offered in the program.

First year, second semester students from the Elementary Chinese II class from spring semester 2016 and the Elementary Chinese II class from fall semester 2016 participated in the study. Those students who did not wish to participate in the study were excluded from the data collection and analysis. Non-participating students were present for the intervention, however. In spring term 2016, 15 students participated and in fall term 2016, 10 students participated in the study (In addition, 2 students attended the classes, but prefer not taking the post-test. I did not collect the data from them). These 25 students participated in the instructional intervention of learning the metaphorical meaning of color phrases and completed a pre-test, a post-test, and in-class tasks that were also used as data for the study.

### **3.2.2 Instructional procedures and context**

The study was conducted in both the spring 2016 (15 students) and fall 2016 (10 students) semesters in the Elementary Chinese II course. In Elementary Chinese II, the students were able to write short essays (five to ten sentences) and participate in short conversations. The class was conducted in Chinese (90% in target language) and the students were able to comprehend spoken Chinese. My role in these two courses was that of a visiting instructor for 3 weeks during which time I presented lessons on colors and their metaphorical meanings, i.e., the intervention. For each semester, I taught three lessons each week for three consecutive weeks totaling nine lessons in each class on color and their metaphoric uses. Each of the nine lessons during the intervention lasted approximately 15 minutes. The pre-test and post-test required

approximately 20 minutes for completion and were given on the first and last day of the three-week period and were administered outside of the 15 minutes devoted to the intervention.

### 3.2.3 Timeline

The study took place over a 3-week period in 2016 spring semester and 3 weeks in fall semester 2016. A pre-test, which included demographic information on the students, was distributed to the students on the first day. The post-test was given on the last day (day 9) of the intervention and was intended to evaluate the students' understanding of the Chinese color terms, and their metaphorical meanings. The description and rationale for the instructional intervention will be discussed in the following section. The timeline was as follows:

Week	Instruction	Assignment/Data Set
Week 1	Metaphor awareness activity- color terms	pre-test
Week 2	Introduction of the basic meaning first, then extended to metaphorical meaning	Discussion, Group activity
Week 3	Review and assessment on choices of color in culturally appropriate situation	Post-test, Culturally situated task

Since the curriculum for these 3 weeks of the course covered colors, clothing, shopping, and their cultural significance in China, incorporating the metaphorical meanings of color was seamlessly integrated into the course content and language objectives. While serving as the instructor, I used various pedagogical tasks to inform students of the metaphorical implications of the colors. Pictures, videos, and a variety of classroom activities were used to raise students'

awareness and improve their skills in interpreting the metaphorical meanings of selected Chinese color terms.

### **3.2.4 Instructional intervention**

In this study, I designed the instructional intervention primarily in light of the concept-based instruction approach promoted by Bobrova & Lantolf (2012). Grounded in sociocultural theory, concept-based instruction is a pedagogical approach that proposes well-planned and well-organized instruction to introduce concepts to students, provide them with tools for assistance, and help them develop their own understanding of the concepts through stepwise guidance (Gal'perin, 1989). That is to say, students not only memorize and understand the definitions of the concepts, but are also be able to use their understanding as a conceptual framework to transfer their knowledge and apply their comprehension skills to future concepts in the same domain. In this particular study, the concepts that needed instruction were the cultural and metaphorical meanings behind certain Chinese color words. The expected learning outcome was that the students would gradually build up a conceptual awareness of these implications and would be able to use this awareness to better interpret the metaphorical meaning of Chinese color phrases in novel contexts.

Gal'perin, one of the major figures in the sociocultural school of thought, proposed to use a four-step teaching procedure to help students achieve this goal of concept internalization (Haenen, 2001; Arieviditch & Haenen, 2005). The four steps are: 1) Orientation, where the learning goal is explained and the learning contents are presented as a meaningful whole to students; 2) Materialization and visualization, where students are encouraged to familiarize themselves with the concepts by hands-on manipulation of material objects or their symbolic



representations; 3) Verbalization, where students are instructed to move from their use of physical learning tools to verbalizations about the concepts during their application in various communicative activities; and 4) Internalization, where students begin to internalize the concepts as a result of subsequent levels of abstraction (material to verbal to mental actions), and become more capable of using internalized concepts to find solutions for future learning tasks without any material supports (Lantolf & Thorne, 2006).

In designing this instructional intervention, I took inspiration from Gal'perin's four-step teaching procedure, but also made necessary modifications to the procedure to make the intervention more suitable for the students' language level. For example, to orient the students to the lesson on color metaphors (step 1), I began with introducing the historical and cultural background of colors, using English when necessary. The primary goal of the metaphorical awareness activity was to help students understand the metaphorical meaning behind the color phrases.

During the materialization and visualization stage (step 2), I helped the students to gain a better understanding of the cultural concepts of some Chinese color phrases with the help of materialized props (pictures and videos). I presented the color phrases in different cultural context by using pictures and material objects. For example, I brought a red envelope to class, which is used for giving money inside during the spring festival. Parents or senior people give the red envelope to kids (or younger people) as gifts. I also showed the use of red paper as decoration for wedding and festivals.

To engage students in verbalizing their understandings (step 3), I gave time to students to discuss their understandings of metaphors of color in peer-interactions and group activities, which gave students the opportunity to verbalize and process what they were learning.

In terms of the internalization stage, it was hard to determine if students were able to internalize the concepts in a three-week study. However, the outcome of the students' post-test was a way to verify if the intervention helped students to learn about the cultural relativity of metaphors. The post-test also examined if the students could make use of the knowledge that they gained from instruction to interpret novel metaphoric expressions using the color metaphors that they had learned.

I carefully designed the instructional intervention, which was implemented in an intact foreign language classroom foreign language classroom and was incorporated seamlessly in the existing curriculum. Since the instructional intervention needed to be aligned with learning objectives required by the Chinese program, the topic of the lesson -- shopping and colors of clothing -- and the language objectives for both the spring and fall 2016 semesters were the same.

Here is an example of Lesson 1 and 2 of the intervention, which introduced and practiced the literal meaning of color terms (Lesson 1), followed by instruction and practice on their extended metaphorical meanings (Lesson 2).

### **3.2.5 Example lessons**

#### **3.2.5.1 Example of Lesson 1**

A series of color phrases (e.g., *Red person*), with a focus on red, white, and black, were introduced to the students along with other new vocabulary such as the Chinese words for clothing, an objective of the daily lesson. A group of deliberately designed pictures and sentence patterns were used to support students' interpretation of the metaphorical implications of these color words (See the Table for the details in the instruction).

Color	Instructional Method
<u>Red</u>	<p>1. A picture of a good-looking young man wearing a red shirt was selected to represent this color. The purpose was to give the students an overall positive impression of this color.</p> <p>2. This positive impression was further enhanced with the practice of the following sentence pattern:</p> <p>她今天穿了<u>红色的衬衫</u>，我觉得很好看[ta1 jin1 tian1 chuan1 le hong2 se4 de chen4 shan1, wo3 jue2 de hen3 hao3 kan4]。（Today she wears <u>a red shirt</u>. I think it looks good）</p> <p>The phrase “好看[hao3 kan4] looks good” was purposefully highlighted in red, to encourage the students to transfer the positive connotation associated with the phrase to the color of red.</p>
<u>White</u>	<p>1. A picture of a white ghost was selected to represent this color, which was used to give the students a negative impression of this color.</p> <p>2. This negative impression was further enhanced with the practice of the following sentence pattern:</p> <p>这个女鬼穿着白色的衣服，我觉得有点吓人[zhe4 ge4 nv3 gui3 chuan1 zhe bai2 se4 de yi1 fu2, wo3 jue2 de you3 dian3 xia4 ren2]。（The ghost wears <u>a white clothes</u>. I think it is scary.）</p> <p>The phrase “scary” was highlighted in white, to encourage the students to transfer the negative connotation associated with the phrase to the color of white.</p>

### Black

1. A picture of the grim reaper wearing a black robe was selected to represent this color, in order to reinforce the students' overall negative impression of this color.

2. This negative impression was further enhanced with the practice of the following sentence pattern:

他今天穿了黑色的衣服，我觉得很难看 [ta1 jin1 tian1 chuan1 le heil se4 de yi1 fu2, wo3 jue2 de hen3 nan2 kan4]。 (Today he wears a black robe. I think it is bad-looking)

The phrase “难看 [nan2 kan4], ugly” was highlighted in black, to encourage the students to transfer the negative connotation associated with the phrase to the color of black.

### **3.2.5.2 Example of Lesson 2**

The picture of a Chinese yuan (¥100) was selected to represent the color of red. The word for the Chinese yuan was also a new word that the students needed to learn. The students were asked to say the color of the currency and state whether they liked it or not, using the sentence patterns provided.

As expected, all students liked the currency and associated it with positive feelings. This task was intended to help students transfer their fondness of money to the color red, and thus assign a positive meaning to the color red in Chinese. In this case, students may have been aware that the metaphorical meanings of colors were not always fixed or stable across cultures. How a color is metaphorically perceived and interpreted in a society is closely connected to the objects, events, and feelings with which the color has been regularly associated in that society. The

outcome on the students' post-test was a way to verify the assumption that the intervention helped students to learn about the cultural relativity of metaphors.

### 3.3 DATA COLLECTION

Data collections included in-class assessments and a pre-test and a post-test. In-class assessments were carried out as an integral part of regular classroom instruction. During class, the students were asked to choose appropriate colors for different Chinese social occasions: a Chinese wedding ceremony, a meeting with the mafia boss, and a Chinese New Year Gala. The three scenarios were purposely selected to test if the students had the basic metaphorical awareness of the implications of the color red, white, and black in Chinese culture. This assessment was administered in the form of teacher-student interaction. When I asked the questions, the students answered the questions by holding up a color card (red, black or white), and said in Chinese “I choose the color red, black or white.” Then I counted the numbers of each color and recorded them.

Examples of color phrases used during data collection in the pre-test and post-tests are given below.

#### Sample Color Phrases

#	Lexical Item	Literal Translation	Figurative Meaning
1	红人	red person	favorable person
2	黑话	black words	slang used by robbers and thieves
3	白眼	white eyes	treat with impatience; dislike

The pre-test was conducted immediately before and the post-test immediately after the instructional intervention.

### **3.3.1 Pre-test**

Demographic information, color term evaluation, and the interpretation task on 12 color phrases (4 on red, 4 on black, and 4 on white, see the Pre-test in Appendix B).

The pre-test included 12 Chinese color phrases using the colors red, black, and white that were presented only with their literal English translations. The students had not learned these color phrases prior to the pre-test. The purpose of the pre-test was to document the students' initial conceptual understanding of the metaphorical meanings of the selected color terms (see the sample of pre-test question). The absence of the Chinese original words gave the students the freedom to interpret these colors based on their knowledge of English. What the pre-test was intended to examine was the primary conceptual framework that dominated the students' initial interpretations of the colors in the pre-test. Based on the pre-test, I established a base-line of understanding of metaphors of color for comparative purposes on the post-test after the intervention.

### **3.3.2 Post-test**

On the post-test, students were asked to interpret 12 color phrases (4 on red, 4 on black, and 4 on white). In addition, three novel metaphoric expressions (red-*Red fire*, black-*Black money*, and white-*White speaking*) were included to determine if the students could make use of the knowledge that they gained from instruction to interpret novel metaphoric expressions using the

color metaphors that they have learned (see Appendix C). The post-test included the same questions on the pre-test, but added the Chinese characters and pinyin to the English literal translations of the color terms. The presence of the Chinese characters and pinyin served to remind the students that they should use what they had learned in class to interpret the metaphorical meanings of these color terms within the Chinese cultural context.

For example, one novel metaphoric expression was *Red Fire* 红火. Students recognized the character “red” and the character “fire”, so the literal meaning did not present a challenge to their comprehension skills. What I hoped to see was if the students could interpret “red fire” as having a positive metaphorical meaning, even though they were not explicitly taught the combination of the color red with the noun fire. I was interested to see if the students could use their conceptual understanding of GOOD LUCK IS RED in Chinese to interpret this new phrase.

### **3.4 PILOT STUDY**

The pilot study I conducted provided valuable feedback about the research design and instructional intervention. The data from pilot study also provided examples for modifying the data analysis plan.

The present study was an extension of the pilot study, which furthered the investigation of the research questions, refined the data collection, and informed the design of the intervention. First, the research design of the current study was more comprehensive, including the instructional intervention and assessments (pre-test and post-test). The current study is more comprehensive because the instructional intervention lasted 3 weeks, while pilot study lasted for only 3 days. Furthermore, the pilot study only focused on the color red, while the current study

included color phrases with red, black, and white. In addition, the pilot study did not include a post-test because of the limited amount of time for the intervention. The current study developed a complete post-test to assess all aspects of the intervention.

Second, the list of the color terms and research instruments were revised to reflect more communicative input and classroom activities about the metaphorical meanings of color words in Chinese. Because the current study took place over a three-week period, the instructional intervention included more teacher input, instruction, and activities on the color phrases using visuals and in-class peer interactions. To allow students to process what they were learning, I gave time for students to discuss their understandings of metaphors of color in peer interactions and group activities.

Third, there were more participants (25 in total). In addition, as an assessment after the intervention, I included a new task on culturally situated choices of colors including asking students for their reasons about their choices (see Appendix D).

### **3.5 DATA ANALYSIS**

For the data analysis, I collected and analyzed both quantitative and qualitative data. The quantitative data was based on the interpretation scores of color terms on the pre-test and post-test. I assigned 1 for a correct answer or 0 for an incorrect answer for each color phrase and examined the changes of the students' interpretations from pre-test to post-test. For example, if the interpretation of *Red person* is an "angry person" on the pre-test, a score of 0 would be given. If the interpretation changed on the post-test to "a lucky or popular person," assigning red a



positive meaning, a score of 1 would be assigned. I used descriptive analysis to look at the changes from pre-test to post-test.

The reason for only giving 1 or 0 to the answers on the pre-test and post-test was that I was not differentiating levels of interpretation because the students were either in the semantic range of the color metaphor or they were not. What I was interested in was a general understanding of the metaphorical meanings (good vs. bad; positive vs. negative, happy vs. sad, etc.). The idea was to examine if students could re-conceptualize the metaphorical meaning of the color based on instruction rather than their linguistic and cultural background.

When analyzing student interpretations of metaphor, I also coded the data qualitatively by analyzing the students' reasons for the interpretations that they made on both the pre-test and the post-test. For example, one student interpreted *red person* as an angry person on the pre-test. He explained that a person's face will turn red with anger (I coded this response as physical description). Two raters (one the researcher and the other an instructor in the Chinese program who taught the same level of class) reviewed and discussed the rating scale before independently assessing and assigning points to the students' responses. The point value for each of the students' answers was the average points assigned by the two raters for each color phrase. The level of agreement between the two raters was 95%. The reason for such a high level of agreement was that scoring did not require the raters to engage in complex interpretations of the color phrases in the pre-test and post-test.

## 4.0 FINDINGS

This chapter presents the findings for the three research questions that are organized in three sections. The description and rationale for the instructional intervention were discussed in Chapter 3.

Twelve lexical items made up of a color phrase (red, black, and white) were taught to students. The reason to include these three colors is that they have figurative meaning in Chinese which differ in whole or in part from their figurative meaning in English. For example, red color was presented as positive meaning and black was presented as negative meaning. The color of red in Chinese culture has dominantly positive meaning, which contrasts with English. The color of white in Chinese culture has both positive and negative meanings depends on the lexical items with which it is associated, which also contrasts with English language. Usually in English, white represents purity, cleanliness, and innocence. The reason the color of black was included was to investigate if there was similarity of its meaning in both Chinese culture and English. Table 1 is a brief summary of the three-week instructional intervention and data collection assignments (see complete description of the intervention in chapter 3). This schedule was followed for the two classes during two semesters.

Table 1. Summary of instructional intervention and data collection

Week	Instruction	Assignment/Data
Week 1	Metaphor awareness activity- color phrases	Pre-test

Table 1 continued

Week 2	Introducing basic meaning first, then extended to metaphorical meaning	Discussion, Group activity, In-class ongoing assessments
Week 3	Review and assessment on choices of color in culturally appropriate situations	Post-test, Culturally situated tasks

#### 4.1 RESEARCH QUESTION 1: INTERPRETATIONS OF COLOR PHRASES

This section reviews the data collection and analysis to answer Research Question 1 and summarizes students' interpretations of color phrases from different linguistic and cultural backgrounds.

##### Research Question 1:

*What are the initial interpretations of certain color phrases by students from different linguistic and cultural backgrounds?*

Research question 1 was answered from the data collected using the base-line questionnaire and pre-test. Table 2 shows the demographic information of the participants. One column was for cultural background and one column for the dominant language. The dominant language was the language in which the students were the most proficient. Some of these students were bilingual or heritage language learners.

Table 2. Demographic information of the participants

#	Semester	Gender	Age	Nationality	First Language	Languages used at Home
1	2016 Spring	F	22	USA	English	English
2	2016 Spring	F	19	USA	English	English
3	2016 Spring	M	21	USA	English	English
4	2016 Spring	M	20	USA	English	English, Spanish

Table 2 continued

5	2016 Spring	M	21	USA	English	English
6	2016 Spring	F	21	South Korea	Korean	Korean
7	2016 Spring	M	23	South Korea	Korean	Korean
8	2016 Spring	F	21	USA	English	English, Korean
9	2016 Spring	F	22	USA	English	English, Korean
10	2016 Spring	F	20	USA	English	English, Chinese
11	2016 Spring	M	21	USA	English	English, Cantonese
12	2016 Spring	F	19	USA	English	English
13	2016 Spring	F	22	USA	English	English, Fujian dialect
14	2016 Spring	F	20	USA	English	English, Chinese
15	2016 Spring	F	20	USA	English	English
16	2016 Fall	F	21	USA	English	English
17	2016 Fall	F	21	India	English	English, Gujarati
18	2016 Fall	F	20	USA	English	English, Jamaican
19	2016 Fall	M	20	USA	English	English, Amerioan
20	2016 Fall	F	21	USA	English	English, Cantonese
21	2016 Fall	F	21	USA	English	English
22	2016 Fall	F	21	USA	English	English, Taiwanese
23	2016 Fall	F	21	USA	English	English
24	2016 Fall	F	21	USA	Fujian dialect	English, Fujian dialect
25	2016 Fall	F	21	USA	English	English, Chinese

In Table 2, among the 15 participants of 2016 spring term, US American represents 5 participants with English as the dominant language, and they were Americans without any Chinese language background. For the 4 Korean students, 2 of them were Korean who came to U.S. to enroll in college. Their first language was Korean. The other 2 were Korean Heritage Language learners (American born Koreans). For the 6 American born Chinese, their dominant language was English, especially in a school setting, and 3 of them were able to speak Chinese or Cantonese.

Among the 10 participants of 2016 fall term, US American represents 3 participants with English as the dominant language, and they were Americans without any Chinese language background. For the 6 American born Chinese, their dominant language was English, and 4 of them were able to speak Chinese, Cantonese, or Taiwanese.

In total, the Female students (n=19) are outnumbered by male students (n=6), and the age ranges from 19 to 23-year old.

In the data analysis, my assumption was that the American born Chinese might have a working knowledge of the language and culture, which provided them with an advantage in understanding Chinese color metaphors. The following data analysis was to examine if my assumption was correct.

#### **4.1.1 Pre-test points of color phrase: *Red person***

To look at students' most common and immediate interpretations of the color phrase, I collected data on the students' understanding of the noun phrase *Red Person*. As mentioned before, the purpose of the pre-test was to understand the primary conceptual framework that dominated the students' initial interpretations of the colors. Because this was a pre-test, I did not teach them anything yet, just asking what is their initial interpretation without instruction of cultural differences. As shown in Table 2, the participants came from different cultural and linguistic background, including heritage language learners. Despite the different cultural and linguistic backgrounds, the dominant interpretation for *Red person* was to assign a negative attribute to the person. Table 3 is the summary of the interpretations of the color phrase *Red person*.

Table 3. Pre-test results on the interpretations of *Red person*

Participants	Positive or Negative	Interpretations
2016 spring (15)	Negative (15)	angry person (8) native American (2) drunk person (2) shy, embarrassed (1) foreigner (1) danger person (1)
	Positive (0)	
2016 fall (10)	Negative (9)	angry person (5) native American (1) sun burn (1) injured person (1) culture revolution (1)
	Positive (1)	Santa Claus (1)

Based on the interpretations and explanations, “angry person” is the dominant first impression about *Red person*. Thirteen participants out of 25 associated the color of red with ANGER and explained, “face turns red when people get angry/drunk/ embarrassed.” Only one American English speaker interpreted Red person as having positive meaning, because Santa Claus wears red clothing. In this situation, students made these interpretations based on their metaphorical understanding that RED (concrete source) IS ANGER (abstract target). In both 2016 spring and 2016 fall semester classes, these interpretations were found across English-speakers and American born Chinese, most likely because they shared the same dominant language (English) and cultural background.

Two American English-speakers interpreted *Red person* to mean “native American”, and explained this phrase was learned from history class. This explanation reflected the student’s background knowledge of phrases used in American history despite the fact that referring to an Indian as a *Red Person* is considered derogatory. One Chinese heritage learner interpreted *Red*

*person* as “cultural revolution”, and stated the phrase was learned from parents’ experience and also learned from history class. This reflected the student’s personal experience from family and knowledge in history as well.

In sum, the explanations for *Red person* can be divided into three main categories: **physical descriptions** (e.g., physical reactions), **historical meaning** (e.g., academic knowledge), and **personal experience** (e.g., parental experiences). As for the Chinese cultural revolution case, it was both historical and personal (based on parents account). This shows that metaphorical meanings come from a VARIETY OF (CONCRETE) SOURCES, which is consistent with metaphor theory (Lakoff & Johnson, 1980). What is important to note in the base-line data is that for 24 out of 25 students, and despite their cultural and linguistic backgrounds, RED implies a negative attribute (e.g., anger, injury, pain, intoxication, or a pejorative way of referring to a group of people). For the Heritage Language Learners (both American born Chinese and American born Korean) interpreted *Red person* as negative, because these students spent most of their lives in the US and were educated in the US. This finding indicates that despite cultural and linguistic differences, the base line data in English shows that students had a metaphorical interpretation consistent with US American culture.

#### **4.1.2 Pre-test points for red color phrases**

The purpose of the pre-test was to understand the primary conceptual framework that dominated the students’ initial interpretations of the colors phrases. On the pre-test, I included four literal English translations (*red person, current red, red walk, red move*) of Chinese color phrases associated with red (see Table 4, the column on Literal Translation). The absence of the Chinese characters gave the students the freedom to interpret these color terms based on whatever

previous knowledge they had about these terms, or, if they had no previous knowledge, their first impression of the English literal translations.

Table 4 contains the list of the color phrases, including lexical items written in Chinese characters, root conceptual metaphor, pinyin (pronunciation), part of speech, and figurative meaning. This list, which included the figurative meaning and root conceptual metaphor, was only for research purposes. The meaning was not shown or given to the students. In other words, I did not instruct the students on the metaphorical meanings of these four expressions so that I would be able to determine on the post-test if students were able to change their metaphorical interpretations of these expressions based on the instructional intervention.

Table 4. Color phrases of red

#	Literat Translation	Lexica l Item	Root conceptual metaphor	Pinyin (pronunci -ation)	Part of Speech	Figurative Meaning
1	<i>Red person</i>	红人	POPULARITY IS RED	hóng rén	n.	popular person
2	<i>Current red</i>	当红	POPULARITY IS RED	dāng hóng	v.	to be in fashion, popular, well- known
3	<i>Walk red</i>	走红	BEING LUCKY IS RED	zǒu hóng	v.	be in luck, have good luck
4	<i>Red move</i>	红运	LUCKY IS RED	hóng yùn	n.	good luck

On the pre-test, participants were asked to interpret and explain their first impression of the color phrase. The color phrases were literally translated into English as: 1) red person, 2) current red, 3) red walk, and 4) red move. Because this was a pre-test, I was interested in determining their initial interpretation without instruction on cultural metaphorical differences. Table 5 shows the Pre-test results on the interpretations of the red color phrases.



For the grading criteria, I coded 1 point for an accurate answer or 0 point for and inaccurate answer for each item. For example, if the interpretation of *Walk red* was “Walk angry” in the pre-test giving it a negative meaning, then the point assigned was 0, because *Walk red* has positive meaning in Chinese as in “to be lucky.” I summed the total points for each item of the answers from 25 participants from two classes. For each color phrase, the points ranged from 0 to 25. If all 25 answers were inaccurate, then the total points would be 0. If all the 25 answers were accurate, the total points would be 25.

Table 5. Pre-test points on the interpretations of red color phrases

Color phrases	Accurate Answers from 25 Answers	Percentages of Accurate Answers	Accurate Answers (Positive)	Inaccurate Answers (Negative)
<i>Red person</i>	1	1/25=4%	Santa Claus as positive	Angry person/drunk person/embarrassed person
<i>Current red</i>	3	3/25=12%	Red carpet	Emergency/blood
<i>Walk red</i>	4	4/25=16%	Nice walk/brave walk	Walk angrily/stop sign
<i>Red move</i>	3	3/25=12%	Skilled move	Urgent move/culture revolution

On the pre-test, only one answer out of 25 answers (4%) interpreted the color phrase *Red person* as positive, giving the explanation that “Santa Claus wears red clothes”. The other 24 answers (96%) interpreted *Red person* as negative meaning such as angry person, drunk person and embarrassed person. For the color phrase *Current red*, 3 answers out of 25 (12%) were accurate as positive, the other 22 answers (88%) were inaccurate and assigned a negative meaning to this phrase. For the phrase *Walk red*, 4 out of 25 (16%) answers were accurate such as nice walk or brave walk, and 21 out of 25 (84%) answers were negative as in walk angrily or stop sign. It was worth noting that 3 of the 4 positive answers on *Walk red* were from Chinese

heritage learners. For the phrase *Walk move*, 3 out of 25 (12%) answers were positive, while 88% answers were inaccurate as negative.

I also examined the cultural and linguistic background of the students. For example, one Korean student pointed out that “Our culture (Korean) use red to point out emergency”, and the student interpreted *Red move* as “urgent move because red is usually used when urgent”. Another Korean student stated that “I feel like red is only good when it is with object, such as red envelope. But if it is with verb, red is considered negative” and therefore she provided the answer to *Red move* as a negative action. One American student with an English and Spanish bilingual background interpreted red in Spanish (rojo) in a neutral way as “internet”.

Interestingly, one English speaker wrote in the explanation of *Red move*, that is was connected with the Chinese dragon and, therefore, positive. This student wrote “this phrase reminds me of the parades and costumes often used during Chinese celebrations”. From the interpretations and explanations, it seems that different cultural experiences and memory of events associated with the color Red may have a different impact on the interpretation. What is clear, however, is that the majority of students assigned the color red to a negative meaning and that this color was indeed appropriate to teach to examine changes in students’ metaphorical interpretive ability in Chinese.

#### **4.1.3 Pre-test points for black color phrases**

The reason to include the black color is because of the similarity in meaning in both Chinese and US American culture. The color black carries a negative meaning in both languages and cultures. The phases using the color black were given to students to verify if the two different cultures

shared a similar metaphorical understanding of black. Table 6 is the list of the color phrases that include the adjective black.

Table 6. Color phrases of black

Literal Translation	Lexical Item	Root conceptual metaphor	Pinyin (pronunciation)	Part of Speech	Figurative Meaning
<i>Black shop</i>	黑店	DISHONESTY IS BLACK	hēi diàn	n.	shops that make profits through dishonest ways;
<i>Black words</i>	黑话	ILLEGAL IS BLACK	hēi huà	n.	slang used by robbers and thieves
<i>Black heart</i>	黑心	EVIL IS BLACK	hēi xīn	n.	evil heart
<i>Black money</i>	黑钱	ILLEGAL IS BLACK	hēi qián	n.	illegal money

To analyze the pre-test results, I coded 1 point or 0 point for each answer of the color phrases to show if it is accurate of the answers. For example, if the interpretation of *Black shop* was “illegal shop” in the pre-test thus assigning it a negative meaning, then the point was 1, because *Black shop* has negative meaning in Chinese. I added up the total points of each items from 25 answers for each color phrase (Table 7).

Table 7. Pre-test points on the interpretations of black color phrases

Color phrases	Accurate Answers from 25 Answers	Percentages of Accurate Answers	Accurate Answers (Negative)	Inaccurate Answers (Positive)
<i>Black shop</i>	22	22/25=88%	illegal/underground shop	Formal shop for suits
<i>Black words</i>	24	24/25=96%	swear/hurts/curse words	Black people say
<i>Black heart</i>	25	25/25=100%	cold/mean/evil heart	
<i>Black money</i>	24	24/25=96%	dirty/ illegal money	Formal business

Overall, the color phrases associated with black were interpreted negatively (e.g., mean, dark, mysterious, dirty). This finding confirms that Chinese and US American cultures share a similar metaphorical interpretation of the color black when used in noun phrases. In the case of the students who did not associate black with a negative attribute, two American English speakers gave positive answers to *Black shop* as “formal shop for suits, ties, etc., because black is formal”. Another US American student connected *Black money* with “formal business, because black represented “business” for this student. One US American student pointed out that “Race plays a big part in our society and this language is part of it”, in the explanation of the meaning of *Black words*. Thus, for this student, black represented racial identity and did not carry a negative meaning. In general, the findings indicate that the color black shares a negative meaning in both Chinese and US American cultures, while in US American culture, color black could also be associated with formal business or ethnic identities giving a positive meaning to the color.

#### **4.1.4 Pre-test points for white color phrases**

The color white in Chinese has both positive and negative meanings depending on the lexical items with which it is paired. In English, white most often represents purity, cleanliness, and innocence, all positive meanings. In Chinese, white does not often carry this positive meaning, as the examples below illustrate. Table 8 contains the list of the color phrases associated with white.

Table 8. Color phrases of white

Literal Translation	Lexical Item	Root conceptual metaphor	Pinyin	Part of Speech	Figurative Meaning
<i>White eyes</i>	白眼	DISLIKE IS WHITE	bái yǎn	n.	dislike, treat with disdain and impatience
<i>White fee</i>	白费	USELESS IS WHITE	bái fèi	v.	labor in vain
<i>White thing</i>	白事	DEATH IS WHITE	bái shì	n.	funeral
<i>White match</i>	白搭	USELESS IS WHITE	bái dā	adj.	no use, no good

For the grading criteria, I coded 1 or 0 for each answer to show if it was accurate or not. For example, if the interpretation of *White eyes* is “innocent eyes” in the pre-test was given a positive meaning, then the point assigned was 0, because *White eyes* has negative meaning in Chinese and means dislike or treat someone with impatience. I summed the total points for each item of the answers from 25 participants from two classes. Table 9 is the pre-test results on the interpretations of white color phrases.

Table 9. Pre-test points on the interpretations of white color phrases

Color phrases	Accurate Answers from 25 Answers	Percentages of Accurate Answers	Accurate Answers (Negative)	Inaccurate Answers (Positive)
<i>White eyes</i>	6	6/25=24%	dead/scared eyes	innocent /pure eyes
<i>White fee</i>	2	2/25=8%	useless	clean fee/clean money
<i>White thing</i>	4	4/25=16%	ghost, death	cute/clean/little thing
<i>White match</i>	1	1/25=4%	bad match	good match/nice pair

For the color phrase *White eyes*, 6 accurate answer out of total 25 answers (24%) interpreted the color phrase as negative, the other 19 answers (76%) interpreted *White eyes* as

Positive meaning such as innocent and pure eyes. It must be noted that 5 of the 6 negative answers on *White eyes* were from Chinese heritage learners. Among the 5 Chinese heritage learners, 3 of them interpreted *White eyes* as dead eyes, by saying that “when a person dies, their eyes turn white”, and “the white eyes like zombie eyes in horror movies”. The other two Chinese heritage learners interpreted *White eyes* as “scarred eyes”, because “scarred people open eyes really wide, seeing the whites of [their] eyes.” These interpretations appear to come from background knowledge of Chinese or from personal experience such as watching movies.

For the color phrase *White fee*, 2 answers out of 25 (8%) were accurate and assigned a negative meaning to the color, the other 23 answers (82%) were inaccurate giving a positive interpretation to the color white. For the phrase *White thing*, 4 out of 25 (16%) answers were accurate because of associating white with death, as in a ghost, and 21 out of 25 (84%) answers were positive associating white with cute and clean. For the phrase *White match*, 1 out of 25 (4%) answers was negative, associating the meaning with a match stick which had already been used, while 96% answers were inaccurately interpreted as a positive attribute.

In general, participants associated white with a positive meaning, such as clean, pure, and innocent. One Korean student stated when she/he interpreted *White thing*: “it could be a pure thing since white means pure.” One US American student associated white thing as “something that white people do, which reflects white/black racial dichotomy.” Another US American student had the similar comment as “a manner or action associate with a white person, because race is a large part of the society.” These interpretations reflected interpretations based on racial identity and social issues. The findings indicate that in US American culture, the color white often represents positive meanings, while in Chinese, white does not often carry this positive meaning. The majority of students assigned the color white to a positive meaning and that this

color was indeed appropriate to teach to examine changes in students' metaphorical interpretive ability in Chinese.

#### **4.1.5 Summary for research question 1: Responses to pre-test for color phrases**

The findings from pre-test results clearly demonstrated that the majority of students interpreted the color metaphor from their own cultural background, which was different from Chinese. In the case of red, I found that the majority of students assigned the color red to a negative meaning, which was contrast to the color's positive meaning in Chinese. In the case of white, the majority of students assigned white to a positive meaning, also different from Chinese. In the case of black, even though most of the students assigned a negative meaning to the color black, some students associated black with positive connotations. Therefore, the pre-test results served as a base-line data for examining the intervention. These color phrases using red, black and white were indeed appropriate to teach to examine changes in students' metaphorical interpretive ability in Chinese.

From the pre-test results, I have data to show that indeed students' metaphorical interpretations are different from Chinese, where the metaphors differ from English. The pre-test demonstrated that students did not know the majority of the meanings of these Chinese color metaphors. Because of this finding, I can assess the intervention and students' ability to change their representations through intentional instruction on color metaphors. It is, therefore, feasible to conduct the instructional intervention to examine if students can change interpretations of color metaphors, and to see if they can apply these new meanings to new contexts that they have not encountered before.

## 4.2 RESEARCH QUESTION 2: CHANGES IN INTERPRETATIONS

### Research Question 2:

*How, if at all, do students' explanations of color phrases with metaphorical meanings change from pre-test to post-test?*

The purpose of this research was to investigate students' ability to develop metaphorical awareness of certain Chinese color phrases (red, black, and white) and to change their metaphorical interpretations of these colors from their initial reactions to culturally specific uses of color as metaphors. The changes of interpretations were measured primarily through the comparison and analysis of pre-test and post-test points. The post-test used the same questions as the pre-test, but included the Chinese characters for the English literal translations of the color phrases (For example, *Red Person* 红人). The presence of the Chinese characters served as a signal to the students that they should use what they had learned in class to interpret the metaphorical meanings of these color phrases within the Chinese cultural context. In addition, the post-test included three new color phrases that the students had never seen during the intervention (*Red fire*, *Black market*, *White speaking*). The purpose of the three new color phrases was to examine if students were able to interpret the Chinese color metaphor in new contexts.

Based on pre-test points, even though the students learned the character *red* and the character *person*, and they know the literal meaning of *Red person*, they did not necessarily understand the metaphorical meaning in Chinese. Since the lexical item, *Red Person* 红人, was not explicitly given the culturally-specific metaphorical meaning during instruction, the lexical item *Red Person* can be considered a new expression for which students needed to apply their



metaphorical knowledge of RED in Chinese. Throughout the instructional intervention, the color red was presented as a positive attribute of someone or something. Because the students learned the metaphorical meaning of red as RED IS GOOD LUCK, based on this knowledge post-test findings may show that they were able to extend their understanding of RED to the new lexical item *Red Person* and interpret the noun phrase as a “lucky/favorable person”.

#### **4.2.1 Comparison of pre-test and post-test points for color phrase: *Red person***

For data analysis, the quantitative data was based on the interpretations of color phrases. I coded answers as 0 when the answers were not inaccurate and 1 when they were accurate. For example, if the interpretation of “red person” is “angry person” in the pre-test assigning to it a negative meaning, then the number is 0. If the interpretation changed to “lucky/popular person” indicating a positive meaning in post-test, the number assigned was 1. I used descriptive statistical analysis to look at the changes from pre-tests to post-tests in the 25 students who took the course.

The reason for only giving 1 or 0 to the answers was that I did not try to differentiate the levels of interpretation, because the students were either in the semantic range of the color metaphor or they were not. No graduation of meaning is possible. Additionally, because I did not explicitly provide the metaphorical meanings to the specific color phrases used on the post-test during previous instruction, there was no way that students were able to assign the specific metaphorical meaning. What I was interested in was a general understanding of the meaning of the color red in Chinese (good vs. bad; positive vs. negative, happy vs. sad). The goal in this part of the post-test was to see if students could re-conceptualize *Red person* or if they would continue to rely on their own cultural frames of reference for metaphoric interpretation as their

pre-test responses indicated. Table 10 presents the comparison of pre-test and post-test points for *Red person*.

Table 10. Comparison of pre-test and post-test points on *Red person*:

Participants	Pre-test Accurate	Pre-test Inaccurate	Post-test Accurate	Post-test Inaccurate	Sample Students' Interpretations
2016spring (15)	0 (0%)	15 (100%)	15 (100%)	0 (0%)	Lucky/popular person/hero
2016 fall (10)	1(4%)	9 (36%)	10 (100%)	0 (0%)	Lucky/popular/ person famous/cool

As shown in Table 10, when comparing the pre-tests with post-tests, in spring 2016, no student was able to provide a positive interpretation for the color red when used in combination with person. After the intervention, all 15(100%) students in the spring 2016 cohort were able to re-conceptualize their previous negative interpretation of a *Red person* in a positive way. In fall 2016, the total points on the post-test increased from one (4%) to ten (100%). The points students received for their interpretations on this phrase increased from the pre-test to the post-test, which indicated that all but one student could re-interpret the color metaphor positively in Chinese and suppress the negative connotation of the color word “red” in their first language.

The one student in the fall 2016 class who received a score of 1 on the pre-test because of her association of the color red with Santa Clause was also able to apply her knowledge of the Chinese meaning of red to this new context (*Red person*). Although she interpreted red positively on the pre-test, the positive meaning was not the Chinese meaning of lucky. Her interpretation was based on a Western holiday and her culture. After the intervention, she was able to interpret using the positive Chinese metaphorical meaning and did not rely on her Western cultural meaning.

The points for both classes on the post-test test are higher than pre-test because the students' interpretations were positive and consistent with the Chinese metaphor ("lucky/popular/famous person"). Given that the only instruction on color metaphor that these students had received was in their Chinese class, it is fair to conclude that re-interpreting the color phrase 'red' in a new context was a direct result of the instructional intervention. In addition, two students corroborated this conclusion by stating on the post-test that they had learned the positive meaning of color red from Chinese class.

#### **4.2.2 Comparison of pre-test and post-test points for red color phrases**

When combining the two classes of participants from 2016 Spring (15) and 2016 Fall (10) together, the total participants were 25. Table 11 shows the number of students who provided correct answers on the pre-test and post-test. The post-test included the 12 color phrases which were the same on the pre-test, and three novel color phrases (*Red fire*, *Black market*, *White speaking*). The reason to include new phrases was to examine students' ability to interpret the Chinese color metaphor in new contexts.

I examined the changes of the interpretations on pre-test and post-test. For example, if students interpreted *Walk red* as "Walk angry" in the pre-test by giving the expression a negative meaning, then the point would be 0. *Walk red* has positive meaning in Chinese, and it means "to be in luck." If the interpretation changed to a "happy walk" indicating a positive meaning on the post-test, the score would be 1. The reason for only giving 1 or 0 to the answers is that the students were either in the semantic range of the color metaphor or they were not. In this case, the semantic range is polarity, either positive or negative. What I was interested in discovering was the students' general understanding of the meaning of the color metaphor in terms of binary

opposites (good vs. bad; positive vs. negative; lucky vs. unlucky). The total points ranged from 0-25 with one point given for each accurate answer. To show the changes on the pre-test and post-test, I added up the total points earned by the 25 participants for each lexical item. Table 11 shows the changes of points from pre-test to post-test on the phrases that included the color red.

Table 11. Comparison of pre-test and post-test points for red color phrases

Color phrases	Pre-test Accurate	Pre-test Inaccurate	Post-test Accurate	Post-test Inaccurate
<i>Red person</i>	1 (4%)	24 (96%)	25 (100%)	0 (0%)
<i>Current red</i>	3 (12%)	22 (88%)	25 (100%)	0 (0%)
<i>Walk red</i>	4 (16%)	21 (84%)	24 (96%)	1 (4%)
<i>Red move</i>	3 (12%)	22 (88%)	23 (92%)	2 (8%)

\*Scores for 25 students range from 0-25 with 1 for an accurate answer and 0 for an inaccurate answer for each student.

The color red was presented as a “positive” color throughout the instructional intervention. The color phrases on the pre-tests and post-tests also imply a positive attribute in accordance with the instruction given in class. As shown in Table 11, for the color phrase *Red person*, the total points that students received for their interpretations on this phrase increased from 1 to 25 from the pre-tests to the post-tests, which indicated an increase in accuracy from 4% to 100%. For the color phrase *Current red*, the percentage of accurate answers changed from 12% to 100%. In terms of the color phrase *Walk red*, the percentage of accurate answers changed from 16% to 96%. One Korean student maintained the same interpretation of “red is urgent” as on the pre-test, and assigned a negative meaning to *Walk red* on the post-test. For the color phrase *Red move*, the percentage of accurate answers changed from 12% to 92%. Two Korean students assigned a negative meaning to *Red move*, and explained it as “urgent move in dangerous.” From the interpretations and explanations, it seems that the two Korean students interpreted URGENT IS RED based on their own cultural background.

### 4.2.3 Comparison of pre-test and post-test points for black color phrases

Examining the color phrases with black on the pre-test was intended to investigate if the different cultural background of the students (Korean, US American, HLL Chinese, etc.) share a similar metaphorical understanding of color of black. I coded 1 or 0 for each answer of the color phrases, depending on whether the meanings assigned were positive or negative, respectively.

Table 12 below shows the total accurate answers per lexical item for the 25 participants.

Table 12. Comparison of pre-test and post-test points for black color phrases

Color phrases	Pre-test Accurate	Pre-test Inaccurate	Post-test Accurate	Post-test Inaccurate
<i>Black shop</i>	22 (88%)	3 (12%)	25 (100%)	0 (0%)
<i>Black word</i>	24 (96%)	1 (4%)	25 (100%)	0 (0%)
<i>Black heart</i>	25 (100%)	0 (0%)	25 (100%)	0 (0%)
<i>Black money</i>	24 (96%)	1 (4%)	25 (100%)	0 (0%)

\*Scores for 25 students range from 0-25 with 1 for an accurate answer and 0 for an inaccurate answer for each student.

The color black was presented as a “negative” color throughout instruction. The black color phrase has negative connotations in Chinese, which conformed to the instruction that the students received in class. Since the color black also carried a general negative connotation in English, they were able to apply correctly their metaphorical understandings from their first language to these new expressions. Their interpretations of this color phrase were not expected to change significantly from the pre-tests to the post-tests.

As shown in the Table 12, the total score for this phrase did not change to any substantial degree. For *Black shop*, 22 (88%) students responded accurately on the pre-test and 25 (100%) students responded accurately on the post-test. Two students interpreted *Black shop* as formal shop to buy suits and ties on pre-test, but they changed the interpretations in line with Chinese

meaning (illegal shop) on post-test . For *Black word*, 24 (96%) students responded accurately on the pre-test and 25 (100%) students responded accurately on the post-test. The percentage of the accurate answers on *Black heart* was the same on pre-test and post-test, both was 100%. For the phrase *Black money*, the percentage of accurate answers changed from 96% to 100%. This finding indicated that instructional intervention to a large extent confirmed the metaphorical understanding of black that the students brought to the task from their first language. This finding also provides evidence that in the cases where the metaphors were not similar to first language metaphors, the majority of students provided evidence of the ability to change their interpretations.

#### 4.2.4 Comparison of pre-test and post-test points for white color phrases

I examined the changes of the interpretations on the pre-tests and post-tests for color white. For example, if the interpretation of *White eyes* was “innocent eyes” on the pre-test, then the score is 0, because *White eyes* has a negative meaning in Chinese, normally alluding to disliking or treating someone with impatience. If the interpretation changed to “impatient eyes” indicating a negative meaning on the post-test, the score would be 1. The total points ranged from 0-25 with one point given for each correct answer (see Table 13).

Table 13. Comparison of pre-test and post-test points for white color phrases

Color phrases	Pre-test Accurate	Pre-test Inaccurate	Post-test Accurate	Post-test Inaccurate
<i>White eyes</i>	6 (24%)	19 (76%)	19 (76%)	6 (24%)
<i>White fee</i>	2 (8%)	1 (4%)	16 (64%)	9 (36%)
<i>White thing</i>	4 (16%)	21 (84%)	16 (64%)	9 (36%)

<i>White match</i>	1 (4%)	24 (96%)	15 (60%)	10 (40%)
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\*Scores for 25 students range from 0-25 with 1 for an accurate answer and 0 for an inaccurate answer for each student.

The negative connotation of the color white was explained to the students in class. The purpose was to see whether the students could change their initial interpretations of this color metaphor from positive to negative as was documented on the pre-test. For the color phrase *White eyes*, the tests points showed that the total points of the 25 participants increased from 6 (24%) to 19 (76%). However, on the post-test, 6 (24%) students continued to interpret *White eyes* positively, which was incorrect. This indicates these 6 students did not change their metaphorical understanding of *White eyes*. For the color phrase *White fee*, the percentage of accurate answers changed from 2 (8%) to 16 (64%), but 9 (36%) students did not change their interpretations on post-test. They maintained their initial positive interpretations for *White fee*, which was incorrect. For the phrase *White thing*, the percentage of accurate answers changed from 4 (16%) to 16 (64%), with 9 students interpreting the phrase inaccurately. For the color phrase *White match*, the percentage of accurate answers changed from 1 (4%) to 15 (60%). Ten students (40%) continued to interpret *White match* positively, which was an inaccurate interpretation.

One finding is very interesting. When I analyzed the data to track each person's answer, there were 6 students (see Table 13, column of Post-test Inaccurate) maintained their initial interpretations associating the color white with a positive meaning, which was incorrect, on both the pre-test and post-test, and for all four color phrases (*White eyes*, *White fee*, *White thing*, *White match*). In other words, the same six students continued to interpret incorrectly the four phrases using the color white. That is, these six students were included in the Post-test Inaccurate column (*White eyes* 6, *White fee* 9, *White thing* 9, *White match* 10). I continued to track their cultural background and found that, these 6 students were four Chinese heritage learners and two Korean

students. They did not change their metaphorical understanding on color white after instructional intervention.

The finding indicated that though the accuracy of the students' interpretations for color phrases improved from the pre-test to the post-test, some students still maintained their initial interpretations (e.g., white is positive, which is incorrect in Chinese and in the context of these phrases) based on their own cultural background. The instructional intervention might not have been able to change the metaphorical interpretations of certain Chinese color phrases for all the students. This finding may be due to the short duration of the intervention (see Chapter 5 for a further discussion). Another possible reason for the lack of change may be that certain metaphoric meanings of colors are stronger than others and harder to re-assign to a new meaning. The students' dominant languages and cultures might have a stronger influence on maintaining initial interpretations to culturally specific uses of color as metaphors than was anticipated.

### **4.3 RESEARCH QUESTION 3: INTERPRETATIONS IN NEW CONTEXTS**

#### **Research Question 3:**

*Can students make use of the knowledge that they gained from instruction to interpret novel metaphoric expressions using the color metaphors that they have learned?*

This research questions pertains to the students' ability to develop a metaphorical understanding based on what they have learned in class, and apply this knowledge to the interpretation of novel phrases using color metaphors. This part of the data analysis was based on (a) a post-test that included three novel color phrases in Chinese, (b) a post-test that included culturally situated tasks for the selection of color metaphors, and (c) an in-class assessment.



### 4.3.1 The interpretations of novel color phrases

On the post-test, the students were asked to interpret three novel color phrases (*Red fire*, *Black market*, *White speaking*). For the grading criteria, I assigned 1 or 0 for each answer of the color phrases depending on whether the interpretations were accurate or not. For example, if *Red fire* is considered as “lucky”, which is accurate, the score is 1. If the interpretation has a negative meaning, the score is 0. The total scores could range from 0-25, and one point was given for each correct answer. Table 14 shows the total points for each novel color phrases and examples interpretations.

Table 14. Interpretations of novel color phrases

Color phrases	Total Points (participants=25)	Sample Interpretations
<i>Red Fire</i> 红火	25 (100%)	Fire used for celebration/red is used in festivals
<i>Black Market</i> 黑市	25 (100%)	Illegal market
<i>White Speaking</i> 白说	19 (76%)	Clean speaking/useless/waste

\* Points for 25 students range from 0-25 with 1 for an accurate answer and 0 for an inaccurate answer for each student.

#### 4.1.1.1 Red fire 红火

The color red was presented as a positive color throughout the instructional intervention. Among the participants, 25 (100%) students were aware that red conveys a positive meaning in Chinese culture and received one point. As shown in Table 14, 25 students selected the correct positive interpretation after the instructional intervention. One Korean student explained that “*Red fire* means selling well, because Chinese use fire to represent firing up in a positive way.” This

finding indicates that all participants were able to interpret the novel color term correctly based on what they had learned in class. Additionally, only one student associated the color red with positive meaning on the pre-test.

#### **4.1.1.2 Black market 黑市**

The color black was presented as a negative color throughout the instruction. As shown in the Table 14, the total points for this term is 25 (100%), which indicated that the interpretations of the color black were correct when presented in the new context of a market. This accurate answer is most likely based on the students' own language and cultural backgrounds. As was presented in Table 14, the majority of students interpreted the color black correctly on the pre-test. This finding confirmed that color black carried a general negative connotation in both English and Chinese. Additionally, maintaining this interpretation provides evidence that when metaphorical meanings overlap, students did not change their interpretations. When meanings did not overlap, students were able in most cases to perceive the differences in meaning and re-assign a new meaning to a color, such as in the case of the color red above.

#### **4.1.1.3 White speaking 白说**

The tests results showed that the total points of the 25 participants was 19, which indicated that though 19 (76%) students' interpretations of this term were accurate, 6 (24%) students still maintained their initial interpretations (that is, white is positive). When asked to explain their reasoning during the novel color expressions task, the students who interpreted incorrectly, provided following explanations, such as “*White speaking* means comforting words and pure speaking, because white was associated with purity”, and “*White speaking* is clean speaking”. It

was worth noting that these 6 students were the same students who interpreted the color white positively on pre-test and post-test. The 6 students were 4 Chinese heritage language learners and 2 Korean students.

#### **4.3.2 Culturally situated tasks for the selection of colors metaphors**

This task was given right after the instructional intervention on the post-test. I asked students to choose colors for three new situations. This task also served as part of the data collection (see Appendix: Culturally Situated Choices of Colors). The three new situations were:

- 1) You are preparing a gift for a Chinese friend for the spring festival. What kind of color will you choose for the wrapping paper?
- 2) When you are on study abroad in China, a relative of your host family passes away, and you will be attending the funeral. What is the dominant color for the funeral? What color of clothing will you wear?
- 3) You are a manager working for special events in a university. The Chinese Premier will visit your university. You are in charge of deciding the theme color (such as welcome signs, table cloths, background on the stage, etc.) of the event. What color or colors will you choose?

Table 15 shows the students' total points on the task. The finding indicated that most of the students understood the cultural meanings of colors and picked the correct colors. Twenty-one students (84%) out of 25 students selected the correct color of red for the wrapping paper for a gift for a friend during spring festival. For the second situation, 24 (96%) out of 25 students selected the correct color of black and white for the dominant colors at a funeral in China. The one incorrect answer came from a Chinese Heritage student. He explained why he chose gold for

the funeral, “sending gold to loved ones in another world.” For the third situation, the reception to welcome Chinese Premier, 20 (80%) out of 25 students selected the correct color of red and gold. In this task, students could pick any color they knew that was suitable for the situations. For the color gold and green, they learned the character during instruction, but I did not teach metaphorical meaning of color gold and green, because my focus was on the colors red, black and white.

Table 15. Culturally situated tasks for the selection of the correct color metaphor

Color choices	Total Points (participants= 25)	Inaccurate Answers	Accurate Answers
Wrapping paper for gifts	21 (84%)	Green/any color (4)	Red (21)
Funeral	24 (96%)	Gold (1)	Black and white (24)
Chinese Premier visit	20 (80%)	Black/white/black & white (5)	Red/red & gold (20)

Several answers were interesting especially for the theme colors for preparing a reception. The situation was that the Chinese Premier will visit your university and the students needed to choose and design the venue with theme colors. Different from my expectation, four Chinese heritage learners chose the colors black and white, which is not appropriate for the welcoming event. For example, one student chose a white background with black text for a sign, and explained “it is most simple and ordinary color.” Another student selected white for the university event, “because it is neutral and uncontroversial.” The third student selected black as the theme color because “black is for formal events.” The fourth student selected white “because white holds cultural significance.”

These four students were Chinese heritage learners, but they did not know black and white were not suitable for the welcoming event and celebration. As American born Chinese, the students did not necessarily have the cultural background needed to suggest appropriate colors

for special events. What this finding indicates is the variability heritage language learner cultural knowledge and the danger of assuming that simply growing up in a culture ensures an understanding of cultural metaphors, references, and culturally appropriate actions. These heritage language learners also needed to raise their metaphorical awareness.

#### **4.3.3 Findings from in-class assessment**

As part of the data collection, an in-class assessment was conducted in Chinese during the intervention on week 2. I conducted the same assessment for both classes in two semesters with 25 participants in total. The students were asked to choose appropriate color for different Chinese social occasions: a Chinese wedding ceremony, a meeting with the mafia boss, and a Chinese New Year Gala. The three scenarios were purposely selected to test if the students have the basic metaphorical awareness of the implications of the color red, white, and black in Chinese culture. This assessment was administered in the form of teacher-student interaction. When I asked the questions, the students answered the questions by holding a certain color of card (red, black or white), and said in Chinese “I choose color red, black or white.” Then I counted the numbers of each color, and wrote it down.

When asked to choose the gown for a Chinese wedding, 22 out of 25 students (88%) chose the right color of red and gave the meaning of happiness. The other three chose the color white and associated it with purity. When asked to meet with their mafia boss, 23 students (92%) chose the color black, and gave the reason as “illegal or dangerous”. Though the other 2 students chose the same color black, they gave different reason as “black is formal.” In the situation of Chinese New Year Gala, 25 students (100%) correctly selected the color red. This indicated that

majority of the students had the basic metaphorical awareness of the implications of certain colors in Chinese culture.

The findings from post-tests and in-class assessment indicated that majority of the students could make use of the knowledge that they gained from the instruction to interpret the color metaphors in new situational contexts. However, the findings also suggest that even for Chinese heritage learners, it is necessary for them to learn and raise the cultural and metaphorical awareness. We cannot assume that heritage students will understand Chinese culture and conceptual metaphors without instruction. With more instructional intervention on metaphorical awareness, hope the heritage learners could transfer their knowledge and comprehension skills to the study of other Chinese color metaphors in the future.

## **5.0 DISCUSSION**

In this chapter, I will present 4 points for discussion based on the research study. The first point is that intentional instruction is needed for raising students' metaphorical awareness to better understand metaphorical meanings in target language and culture. The second point discusses the reasons why some students maintained their initial interpretations of color metaphors after the instructional intervention. The third point presents the pedagogical implications of the study, including the consideration of the balance of language and metaphorical concepts during instruction. The final point of discussion is the direction for future research, specifically the design of future studies on conceptual metaphors.

### **5.1 INTENTIONAL INSTRUCTION TO RAISE METAPHORICAL AWARENESS**

#### **5.1.1 Intentional instruction to raise awareness on color metaphors**

In this study, the metaphorical awareness that needed to be raised were the cultural and metaphorical meanings behind certain Chinese color phrases. The expected learning outcome was that the students could become aware of the metaphorical implications of certain colors, and use this awareness to better interpret the metaphorical meaning of certain Chinese color phrases

in learned and novel contexts. In this sense, color metaphors were considered as concepts in the concept-based instruction approach promoted by Bobrova & Lantolf (2012).

The design of the intentional instruction was based on concept-based instruction, which is a pedagogical approach using well-organized instructional methods to introduce concepts to students. In addition, in this approach, instructors provide students with the cognitive tools to help them develop their own understanding of the concepts through stepwise guidance (Gal'perin, 1989). That is to say, students do not just memorize definitions of the concepts (in this case color metaphors), but are able to use their understanding as a conceptual framework to apply their knowledge to future learning tasks involving metaphors.

From a concept-based instructional perspective, teaching (color) metaphors does not mean providing students with the metaphorical meanings through translation (e.g., in English). To avoid simply memorizing the meaning of certain color phrases, I did not translate each color phrase during instruction. Instead, for example, I presented the color red in context as a positive attribute of someone or something using visuals and teacher-student and peer interactions in Chinese. Through the visuals and instructional tasks that I provided to students, students were expected to develop the metaphorical concept that RED IS GOOD LUCK.

My goal was to document if the language learners could assign a new meaning to Chinese colors through my intervention (tasks and activities) and then to see if they could apply this knowledge in a new context. The intentional instruction was a well-organized instructional intervention to raise students' metaphorical awareness to help students better understand the conceptual metaphors in target language and culture.



### **5.1.2 Metaphorical interpretations can change after instructional intervention**

In present study, the findings from pre-test results given before the intervention clearly demonstrated that the majority of students interpreted the color metaphor from their own cultural background, which was different from Chinese. In the case of the color red, on the pre-test the majority of students assigned the color red to a negative meaning, which was in contrast to the color's positive meaning in Chinese. In the case of white, the majority of students assigned white to a positive meaning on the pre-test, also different from Chinese. In the case of black, even though most of the students assigned a negative meaning to the color black, some students associated black with positive connotations, such as formal attire. These findings add to the literature on color metaphors. For example, Rasekh & Ghafel (2011) compared basic colors and their metaphorical connotations in English and Persian. They found that though there were overlaps to some extent (e.g., the color black has negative meaning in English and Persian), most of the color metaphorical expressions were culture-bound and specific to each language.

In this study, the metaphorical meanings of the color red and the color white were culturally specific to Chinese language and culture. It was clear from the findings on the pre-test that students did not know the majority of the meanings of these Chinese color metaphors. Because of this finding, I was able to assess the intervention and the students' ability to change their metaphorical representations through intentional instruction on color metaphors.

After the instructional intervention, the majority of the students were able to change their interpretations based on the comparison between their pre-test and post-test responses. However, the degree of the change varied for different colors and for different phrases. The change that shows the largest degree of improvement (88% interpretations changed) was with the color red. The least amount of change (4% interpretations changed) was with the color black. Because the

color black had a negative meaning both in English and Chinese, the majority of students interpreted it correctly (the color black is negative) on the pre-test. The amount of change in the interpretations for the color white was 53%. Six out of 25 students (24%) consistently maintained their initial positive interpretations, even after the instructional intervention that presented the negative meaning of white in Chinese. This finding is worth a more in-depth discussion in the following section.

## **5.2 REASONS FOR STUDENTS MAINTAINING THEIR INITIAL INTERPRETATIONS**

### **5.2.1 Why some heritage learners maintain their initial interpretations**

To summarize briefly the findings, not all students changed their metaphorical representations because of intentional instruction. Though the accuracy of the students' interpretations for white color phrases improved from the pre-test to the post-test, 6 out of 25 students (24%) students still maintained their incorrect initial interpretations that white is positive in Chinese. It was interesting to notice that the six students were four Chinese heritage learners and two Korean students. In addition, on the pre-test, all 12 Chinese heritage learners assigned the color phrase *Red person* with negative meaning, the same as the English-speakers. To examine the language and culture background of Chinese heritage learners, it is necessary to clarify the definition of Chinese Heritage Learners in this study.

In the program in which I taught, a Chinese heritage language learner was defined in the following way. Chinese Heritage Learners in this study were defined mainly linguistically (Wu,

2007). For the purpose of placement in a Chinese language course, a student requesting to enroll in a Chinese language course would be considered a heritage student, if any of the following applied:

1) A Chinese heritage language learner is a student with a certain level of oral and/or aural proficiency because he or she was born in a Chinese-speaking country (Chinese defined herein includes Mandarin Chinese and Chinese dialects such as Cantonese, Taiwanese, Shanghai dialect, which essentially share the same written form as Mandarin Chinese);

2) A Chinese heritage language learner is a student with a certain level of oral and/or aural proficiency because he or she was raised in a home where Mandarin or a Chinese dialect was spoken.

In this study, 12 Chinese Heritage Learners in total (6 from spring semester, and 6 from fall semester) participated in the research, 11 of them were in category 2. That is, they were born in the US. (not in China), and were raised in a home where Mandarin or a Chinese dialect was spoken by one or both of the parents. Only one student was born in Taiwan, then came to USA at a very young age. Through their exposure to the Chinese language, these students had a basic level of oral and/or aural proficiency in Chinese.

It was clear from the pre-test that the Chinese heritage learners' metaphorical interpretations were similar to US Americans rather than native Chinese speakers. This similarity was especially true for the color red and white. This finding demonstrated that we should not make assumptions about the cultural background of Chinese heritage language learners even if they had been raised by Chinese parents in the US. US culture appears to be the dominant culture in cases where the child was raised in the US.

With instructional intervention on metaphorical awareness, the hope is that the Chinese heritage learners would be able to transfer their knowledge and comprehension skills to the study of other Chinese color metaphors in the future. This finding might be relevant to other heritage learners as well, that is, to consider how instruction in the heritage language can maintain a student's cultural heritage when English has become the dominant language in various cultural settings. Enabling students to understand cultural metaphors may be one way to bridge the gap between their cultural and linguistic heritage and the dominant culture and language in which they are raised.

Heritage learners represent a wide range of abilities, not only for language but for cultural understandings, as well. This study reveals that to understand heritage learners, they cannot be defined on the basis of linguistic competence alone. Identifying and describing heritage learners must include their degree of cultural competence so that teachers can better understand students' performance to learn the close connections between language and culture.

### **5.2.2 Possible influence from dominant languages and cultures**

The students' dominant languages and cultures may have an influence on maintaining their initial interpretations of culturally specific uses of color as metaphors. For example, two Korean students maintained the same interpretation of "red is urgent" on the pre-test and the post-test, and assigned a negative meaning to the color red when used in the context of Chinese expressions. From the interpretations and explanations, it seems that these two Korean students interpreted URGENT IS RED based on their own cultural background. Therefore, the instructional intervention was not able to change the metaphorical interpretations of certain

Chinese color phrases for all the students in the short time period during which the intervention took place.

This finding suggests that change is not easy and that our cultural metaphors are truly the ones we live by (Lakoff and Johnson, 1980), even when given alternatives. Changing the way that we semantically mediate our thinking may be difficult and challenging. Our languages bring thoughts into existence (Vygotsky, 1986) and also contain the metaphors that build our thinking.

Another possible reason for the lack of change may be that certain metaphoric meanings of colors are stronger than others and harder to re-assign to a new meaning. Xing (2008), in her comparative study of the basic color terms in English and Chinese, also argued that an in-depth analysis and comparison of color metaphors is needed. For different metaphors, some metaphors might be harder to change. For example, in the case of the color white, the degree of change (53%) was less than the color red (88%). White is an interesting case, and it allows us to see that not all color metaphors may be created equal. Why was it easier to change red but not white? It is possible that white is a powerful positive metaphor in some languages and cultures and hard to view white as a negative attribute.

This finding will contribute to the metaphor literature and suggests that intentional instruction needs to take into consideration that the power of metaphor and not assume that one type of instruction is appropriate for all metaphors. In order to teach different metaphors, foreign language instructors first need to understand the nature and meanings of cultural metaphors in the languages they teach. This knowledge is rarely addressed in most introductory linguistic and foreign language teacher preparation programs. In addition, instructors need to use different instructional designs and interventions for different color metaphors and for metaphoric language in general. For certain metaphors, more discussion and practice may be needed to move students

to new ways of seeing cultural meaning of the metaphor. These suggestions lead to the discussion on the pedagogical implications of this study in the next section.

### **5.3 PEDAGOGICAL IMPLICATIONS OF THE STUDY**

#### **5.3.1 Intentional instruction for cultural metaphors**

This study suggests several pedagogical implications for teaching Chinese as a foreign language and foreign language pedagogy in general. The first implication is that cultural metaphors need to be taught through intentional instruction. The importance of teaching metaphors of all kinds in a language class is to support students' development of cultural understanding. According to Bobrova & Lantolf (2012), though native speakers can usually think and speak in metaphors because they give naturalness to their discourse, the ability of thinking and speaking metaphorically is often absent in L2 learners.

In this study, it is clear from the pre-test findings that students did not know the majority of the cultural and metaphorical meanings of the Chinese color terms. This observation adds to the findings in the literature that most color metaphorical expressions are culture-bound and specific to each language (Rasekh & Ghafel, 2011). To raise students' metaphorical awareness and understanding of these culture-bound and language-specific meanings and to teach them when and how to use them in interpersonal communication, intentional instruction is needed and preferred over implicit instruction, such as using the metaphors in the input that the students hear during instruction.

The same can also be said about Chinese heritage language learners. In most cases, the dominant culture of Chinese heritage learners is still the U.S. culture, especially if they were born and raised in the U.S. Therefore, any assumption about the breadth and depth of their background and knowledge with regard to Chinese culture is unfounded. Because of the importance of the heritage culture, when teaching Chinese heritage learners, instructor should equip them with not only better language skills but also good cultural knowledge of their heritage language. To achieve knowledge of the heritage culture, instruction needs to include not only just grammar, vocabulary, and literacy skills, but also cultural concepts reflected and embodied in the language. In addition, instructors will also need to help heritage learners develop awareness of the reasoning behind these cultural concepts, and encourage students to compare them with the reasoning about metaphors that they use in the students' dominant culture. In this way, learners will be able to actively apply what they have learned about the cultural concepts of their heritage language to real life situations as well as their future acquisition of new cultural knowledge.

Dai (2005) suggests that teaching Chinese heritage learners should be conducted in a multicultural frame. According to Dai, a multicultural frame means that both the heritage culture and the culture in which the heritage learners are currently living should be taught in class. This type of multicultural instruction could raise Chinese heritage learners' cultural awareness of their heritage language. At the same time, it could also help them discover and preserve their ethnic and cultural identity through actively assessing and comparing it from a multi-cultural or intercultural perspective.

Contributing to Dai's argument on a multicultural frame for supporting the teaching and development of the heritage language and culture, this study emphasizes that one's metaphorical

awareness of certain cultural concepts, such as the color phrases, is also an important component of this framework. Intentional instruction on cultural metaphors may be an effective way to encourage heritage students to actively reflect on and analyze their cultural heritage and identify. It goes without saying that this finding is also relevant to the instruction of heritage students in other languages and cultures, as well.

### **5.3.2 Acknowledge learners' different learning and cultural backgrounds**

The data analysis indicates that students' interpretations of the metaphorical meanings of the color terms are strongly affected by their cultural backgrounds and personal learning experiences. For instance, the interpretations of certain color terms, such as *red person*, by American students and American born Chinese heritage students are strikingly similar. This is likely because they have shared the native language and culture as they grew up in the U.S. When they were asked to interpret the metaphorical meanings of certain color terms, they choose to interpret them from the perspective of their dominate culture instead of their heritage culture. To make students aware of their misinterpretations of certain color metaphors due to cultural reasons, the easiest and most effective way is to make an comparison of the cultural implications of the target concept in the learners' L1 and the target language.

The pedagogical implication is that by making a comparison of the target concept in learners' L1 and the target language, awareness of these cultural differences can be made visible. This recommendation was supported by the literature on comparing L1 and L2 cultural concepts. In order to increase L2 learners' metaphorical awareness in the target language, researchers (Boers, 2003; Danesi, 1995, Littlemore, 2009) have carried out cross-culture and cross-linguistic comparisons to help L2 learners understand the similarities and differences between their native



language and the L2 in terms of their metaphorical properties. Boers (2003), for example, emphasizes the importance of metaphorical awareness for FL learning, by demonstrating the impact of metaphor variations across cultures.

In addition to the learners' cultural background, their personal learning experiences may also influence their interpretations of certain color metaphors. For example, a Chinese heritage student interpreted the word Red move as "cultural revolution," and explained that she got this impression from her parents, who may have heard about or personally experienced this movement. In contrast, an American student interpreted Red move as having positive connections, because she connected this color with that of Chinese dragon that she saw at a Chinese festival. In spite of the fact that these two students may share the same cultural background, their different personal learning experiences made them interpret the same color metaphor differently. To correct students' misinterpretations in this case becomes complicated because each student's personal learning experience could be quite unique, and it is impossible to know them all before instruction. Thus, the development of a more comprehensive and learner-centered pedagogical planning becomes important here. Planning for metaphor instruction would involve the instructor gathering students' interpretations of metaphors and their explanations. These interpretations can then be examined to find the commonalities and differences among the different interpretations and explanations of the students in the class. The students' responses could then be applied to the development of lessons and materials for particular metaphors in the target language.

### **5.3.3 Balance between language and metaphorical concepts instruction**

The third pedagogical implication to be considered here is the balance between language and metaphorical concept instruction. The primary participants in this study were Elementary Chinese students. As Bobrova & Lantolf (2012) suggested, metaphorical competence should no longer be considered an obscure or complex aspect of language learning that can only be taught to advanced L2 learners. Rather, metaphor instruction should “take place in the L2 curriculum from the earliest phases of instruction, and the development of metaphorical competence should become a cornerstone of any pedagogy that seeks to stress the integrated nature of language and culture” (p.19). This argument justifies my study in an elementary Chinese class instead of in an advanced level class.

For Chinese classes at the elementary level, developing rudimentary communicative competence in the language is of paramount importance. How to select an appropriate number of metaphorical concepts to teach to the students in a way that does not interfere with their language learning becomes the first and foremost question that I needed to think about when designing this study. Boers (2000) suggests a strategy to draw L2 learners’ attention both to the source domains that serve as the origin of the metaphorical expressions and to the presence of metaphors in the target language. In elementary level classes, the source domain (concrete and observable) often reflects the kind of language that students learn in these courses, such as colors, numbers, everyday objects, etc. By using this strategy, the instructor introduces vocabulary items that are covered in elementary classes but extends their use to include their metaphorical meanings. Therefore, the teaching of language and metaphor are united and depth of both vocabulary and cultural knowledge is developed. In this way, L2 learners can develop the metaphorical

competence that can help them recognize the cross-cultural and cross-linguistic differences in metaphors and use this knowledge in new contexts.

During the instructional intervention in this study, I adopted a sequential and incremental pedagogical plan to seamlessly incorporate the teaching of the color metaphors into the regular classroom instruction. As Danesi (1995) stated, most L2 students show a strong tendency to interpret L2 metaphors literally rather than figuratively, and an important cause of this problem is that the language usage in our textbooks often reflects only literal rather than metaphorical meaning. By implementing well-designed instruction and well-planned learning activities, what I tried to do was to integrate metaphorical awareness with linguistic knowledge.

I started by selecting a limited number of color metaphors that were most important in helping students build up their metaphorical awareness. The colors that I chose were red, black and white. They were chosen either because they are good representatives of Chinese culture (e.g. red) and can stimulate a comparison between the students' source and target cultures (e.g. white). After that, I broke down the instructions of these color words and color metaphors into different levels and phases.

As Littlemore and Low (2006) argued, it is important to integrate both conceptual understanding and linguistic approaches in order to develop the metaphorical competence of learners. In each level and phase, I designed different classroom activities to ensure that students could acquire the linguistic knowledge of these color words (their pronunciation, grammatical rules, and communicative use) and develop cultural awareness of their metaphorical implications at the same time.

At the end of the instructional intervention, in a summarizing class, I presented the students with brief but intentional instruction of the metaphorical implications of the colors and

color terms, as well as the cultural reasoning behind these implications. In this way, the classroom activities were still language-oriented, but the metaphorical meanings and cultural implications behind these colors were embedded into these learning activities. It is worth pointing out that this sequential instruction about color metaphors has the potential to be adapted to different language proficiency levels. I will discuss this further in my presentation of future research directions.

## **5.4 DIRECTIONS FOR FUTURE RESEARCH**

### **5.4.1 Larger scale study with revised research design**

For future research, I plan to continue this study by adding additional color metaphors to my instruction and expanding my research to other conceptual metaphors such as body parts, time and space. For example, heart as a body part is very important in Chinese culture. Because the metaphor of HEART is MIND, words related to thinking usually contain the Chinese character of heart. In addition to observation and reflection of classroom experiences, I will also videotape my classes for analysis of in-classroom activities. The current study used mostly pre-test and post-test results to assess the effectiveness of the instructional intervention. Students' learning of the color metaphors as manifested through classroom discussion and activities could not be effectively measured and assessed due to lack of recorded data. Videotaping the instructional intervention may to some degree solve this problem, and provide instructor an important opportunity to spot signs of students' understanding or misunderstanding of certain color metaphors that may be not clearly revealed in the tests.

A longitudinal study should also be planned and carried out. By conducting such a study, we would be able to see if students can apply their knowledge of certain conceptual metaphors to their learning and interpretation of new conceptual metaphors in the same category, thus to assess the longitudinal effect of the initial instructional intervention. We can also examine and evaluate if the same pedagogical strategies should be used to teach conceptual metaphors in the same category at different language proficiency levels, and if not, what adjustments need to be made. The findings in the longitudinal study may help us find effective pedagogical practices to teach conceptual metaphors across levels and understand students' learning and acquisition process of new cultural concepts.

While CFL teaching has significantly expanded over the past decades, the literature on the instruction of Chinese conceptual metaphors is relatively sparse in comparison with that in other languages. Existing teaching practices of figurative language focus largely on the instruction of idiomatic and formulaic expressions. As Caballero and Díaz-Vera (2013) rightly point out, it is necessary to carry out more research on the cross-cultural and cross-linguistic aspects of metaphors and on how to teach them in classroom.

One future research study that I would like to conduct is a cross-cultural and cross-linguistic analysis of conceptual metaphors by examining the initial interpretations of Chinese metaphors by the L2 learners. By analyzing the different initial interpretations of metaphors, language instructors will understand the prior knowledge and dominant cultural frames that students use for metaphorical interpretation. Instructors may then draw their attention to the metaphorical variations and try to understand the reasoning behind their interpretations during instruction and will be better prepared to address cultural differences.

Another future study I propose is developing a training unit on teaching metaphors for Chinese language teachers to investigate how these teachers implement metaphor instruction in their classes and what challenges and successes that they experienced. In this way, this research will contribute to teacher education and professional development in this area.

#### **5.4.2 The importance of research on metaphors: The value to FL instruction**

FL learning is clearly more than simply translating one's L1 messages into the L2. It is also learning a new way to think about and interpret the world by understanding the linguistic and cultural concepts that are used to describe and construct this world. Metaphors show us the close connection between language and culture (Lakoff & Johnson, 1980). We cannot teach one without the other, even for vocabulary as simple as color words that students learn in their first year of Chinese language instruction. Drawing L2 learners' attention to the presence of metaphors in language can facilitate their comprehension of the literal and cultural meanings of L2 discourse. In addition, it can also help them learn unfamiliar metaphorical expressions by way of categorizing them according to their systematic semantic themes (Boers, 2000, pp. 145-146). Language learners who receive instruction on cultural metaphors have the potential to acquire new language by applying learned metaphorical meanings to their interpretations of authentic texts and to the learning of new metaphors (Tyler, 2012).

My study shows that a coherent and organized pedagogical presentation of Chinese color metaphors can enhance learners' language proficiency as well as their awareness of the cultural concepts behind these metaphors. In addition, it suggests that metaphorical concepts, traditionally viewed as a more suitable learning subject for advanced learners, can be also taught to novice learners, as long as the metaphorical concepts are presented systematically, are

developmentally appropriate for the level of the learners, and are used in a meaningful language-learning context.

In summary, conceptual metaphors play an important role in people's life and daily communication. Understanding the metaphorical implications of the words that language learners encounter and use at early stages of instruction will allow them to comprehend the social, cultural, and historical rationale behind the choice and use of certain words and expressions in their new language and culture.

## APPENDIX A

### LEXICAL ITEMS (COLOR PHRASES) LIST

#	Lexical Item	Root conceptual metaphor	Pinyin	Part of Speech	Literal Translation	Figurative Meaning
1	红人	POPULARITY IS RED	hóng rén	n.	red person	popular person
2	当红	POPULARITY IS RED	dāng hóng	v.	current red	to be in fashion, popular, well-known
3	走红	BEING LUCKY IS RED	zǒu hóng	v.	walk red	be in luck, have good luck
4	红运	LUCK IS RED	hóng yùn	n.	red move	good luck
5	红火	PROSPERITY IS RED	hóng huǒ	v.	red fire	to develop well and successfully
6	黑店	DISHONESTY IS BLACK	hēi diàn	n.	black shop	shops that make profits through dishonest ways
7	黑话	ILLEGAL IS BLACK	hēi huà	n.	black words	slang used by robbers and thieves
8	黑心	EVIL IS BLACK	hēi xīn	n.	black heart	evil heart



9	黑钱	ILLEGAL IS BLACK	hēi qián	n.	black money	illegal money
10	黑市	ILLEGAL IS BLACK	hēi shì	n.	black market	illegal market
11	白眼	DISLIKE IS WHITE	bái yǎn	n.	white eyes	dislike, treat with disdain and impatience
12	白费	USELESS IS WHITE	bái fèi	v.	white fee	labor in vain
13	白事	DEATH IS WHITE	bái shì	n.	white thing	funeral
14	白搭	USELESS IS WHITE	bái dā	adj.	white match	no use, no good
15	白说	USELESS IS WHITE	bái shuō	v.	white speaking	speak in vain

## APPENDIX B

### PRE-TEST ON COLOR PHRASES

English Name: \_\_\_\_\_ Chinese Name: \_\_\_\_\_

1. Demographic Info:

Male Female		Age:	Nationality:
	Your First Language:		Languages Used at Home (may list more than one):

2. Interpretation Task

1) Expression: red person

Interpretation: In your opinion, what does “red person” mean?

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Reason: Please explain the reason for your interpretation.

---

2) Expression: current red

Interpretation: In your opinion, what does “current red” mean?

---

Reason: Please explain the reason for your interpretation.

---

3) Expression: walk red

Interpretation: In your opinion, what does “walk red” mean?

---

Reason: Please explain the reason for your interpretation.

---

4) Expression: red move

Interpretation: In your opinion, what does “red move” mean?

---

Reason: Please explain the reason for your interpretation.

---

5) Expression: black shop

Interpretation: In your opinion, what does “black shop” mean?

---

Reason: Please explain the reason for your interpretation.

---

6) Expression: black words

Interpretation: In your opinion, what does “black words ” mean?

---

Reason: Please explain the reason for your interpretation.

---

7) Expression: black heart

Interpretation: In your opinion, what does “black heart” mean?

---

Reason: Please explain the reason for your interpretation.

---

8) Expression: black money

Interpretation: In your opinion, what does “black money” mean?

---

Reason: Please explain the reason for your interpretation.

---

9) Expression: white eyes

Interpretation: In your opinion, what does “white eyes ” mean?

---

Reason: Please explain the reason for your interpretation.

---

10) Expression: white fee

Interpretation: In your opinion, what does “white fee” mean?

---

Reason: Please explain the reason for your interpretation.

---

11) Expression: white thing

Interpretation: In your opinion, what does “white thing” mean?

---

Reason: Please explain the reason for your interpretation.

---

12) Expression: white match

Interpretation: In your opinion, what does “white match” mean?

---

Reason: Please explain the reason for your interpretation.

---

## APPENDIX C

### POST-TEST ON COLOR PHRASES

English Name: \_\_\_\_\_ Chinese Name: \_\_\_\_\_

(Please mark Positive +, or Negative – in front of numbers)

- 1) Expression: 红人 hóng rén (red person)  
Interpretation: what does “红人” mean? Why?

\_\_\_\_\_

- 2) Expression: 当红 dāng hóng (current red)  
Interpretation: what does “当红” mean? Why?

\_\_\_\_\_

- 3) Expression: 走红 zǒu hóng (walk red)  
Interpretation: what does “walk red” mean? Why?

\_\_\_\_\_

- 4) Expression: 红运 hóng yùn (red move)  
Interpretation: what does “红运” mean? Why?

\_\_\_\_\_

- 5) Expression: 红火 hóng huǒ (red fire)  
Interpretation: what does “红火” mean? Why?

\_\_\_\_\_

6) Expression: 黑店 hēi diàn (black shop)  
Interpretation: what does “黑店” mean? Why?

---

7) Expression: 黑话 hēi huà (black words )  
Interpretation: what does “黑话” mean? Why?

---

8) Expression: 黑心 hēi xīn (black heart )  
Interpretation: what does “黑心” mean? Why?

---

9) Expression: 黑钱 hēi qián (black money)  
Interpretation: what does “黑钱” mean? Why?

---

10) Expression: 黑市 hēi shì (black market)  
Interpretation: what does “黑市” mean? Why?

---

11) Expression: 白眼 bái yǎn (white eyes)  
Interpretation: what does “白眼” mean? Why?

---

12) Expression: 白费 bái fèi (white fee)  
Interpretation: what does “白费” mean? Why?

---

13) Expression: 白事 bái shì (white thing)  
Interpretation: what does “白事” mean? Why?

---

14) Expression: 白搭 bái dā (white match)

Interpretation: what does “白搭” mean? Why?

---

15) Expression: 白说 bái shuō (white speaking)

Interpretation: what does “白说” mean? Why?

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## **APPENDIX D**

### **CULTURALLY SITUATED CHOICES OF COLORS**

Note: Please pick the appropriate colors for three different social occasions: wrapping paper for a gift, dominant color of a funeral, and the decoration for a visit of Chinese Premier. (The four scenarios are purposely selected to test if the students have established the basic conceptual awareness of the metaphorical implications associated with the colors in Chinese culture, and if they are able to apply their conceptual knowledge and interpretive skills to a real life situation.)

- 1) Situation: You are preparing a gift for a Chinese friend for the spring festival. What kind of color will you choose for the wrapping paper?

Color you choose:

Reason: Please explain the reason for your choice.

---

---

- 2) Situation: When you are on study abroad in China, a relative of your host family passes away, and you will be attending the funeral. What is the dominant color for the funeral?

What color of clothing will you wear?

The dominant color:



Color you choose:

Reason: Please explain the reason for your choice.

---

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- 3) Situation: You are a manager working for special events in a university. The Chinese Premier will visit your university. You are in charge of deciding the theme color (such as welcome signs, table cloths, background on the stage, etc.) of the event. What color or colors you will choose?

Color you choose:

Reason: Please explain the reason for your choice.

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